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Southern Medical Record

A Monthly Journal of Medicine and Surgery.

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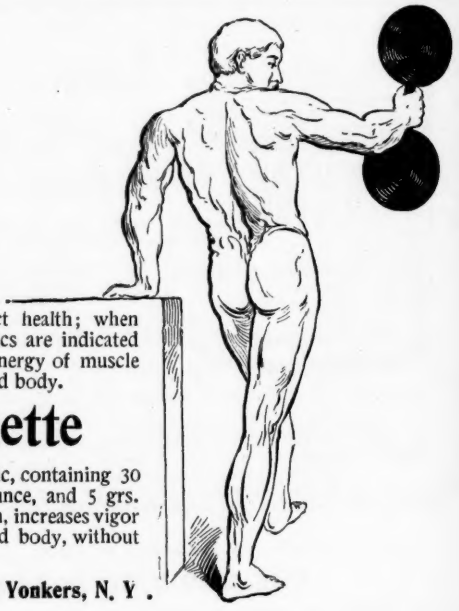

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Southern Medical Record.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

VOL. XXVIII. ATLANTA, GA., APRIL, 1898. NO. 4.

Original Articles.

*REMEDIAL MEASURES IN OBSTRUCTION OF THE COMMON BILE DUCT.

By J. McFADDEN GASTON, M. D., Atlanta, Ga.

The cases of jaundice which result from the temporary closure or constriction of the common bile duct are usually left to the treatment of the physician and yet are the precursors of derangements which require surgical interference and hence come within the sphere of this paper. They commence with functional disturbance, but terminate in organic derangements.

Murphy lays great distress upon the relief of jaundice by pilocarpine. The reliance of the greater number of practitioners for relief in this class of cases has been and continues to be upon the phosphate of soda. But there have been more good results claimed from the employment of olive oil, internally, than from any other remedy of this class. After exhausting medico-chirurgical means of treatment for biliary complications, without arresting obstruction of the common bile duct, the surgeon is confronted with conditions calling for operative interference. There may exist a stenosis or stricture of the walls of the duct, without occlusion of the canal, dependent upon inflammation, or there may be a partial obstruction of the lumen of the duct from the presence of a gall-stone which permits the bile to pass around it to a limited extent. In some cases, Fenger has demonstrated that a gall-stone may be so located as to form a valvular closure. Though an outlet may be artificially provided for the bile by connecting an opening in the gall-bladder with one in the abdominal wall, there is not always relief to the cholæmia, and

*Abstract of paper read before the American Surgical Association, April 20, 1898, at the New Orleans meeting.

its effects upon the general health of the patient continue even to a fatal termination. In a case presenting no enlargement of the liver the incision should be made on a line an inch and a half below the border of the costal cartilages, and should be about three inches in length.

I have elsewhere given an unfavorable opinion in regard to exploratory puncture, and do not consider it entitled to recognition as a means of diagnosis or measure of treatment. The various measures recognized for the relief of obstruction of the common duct by gall-stones are breaking up of the calculi by the needle, crushing by padded forceps, forcing them into the gall-bladder or duodenum, catheterization, and excision through the walls of the duct. In some cases it is impracticable to attach the gall-bladder to the parietal opening or to suture the incision in the wall of the duct when a stone is extracted, and thus it becomes necessary to provide for drainage by packing with gauze, around the field of operation, and leave the ends of the strips extending out of the wound.

In doing operation upon three white women for obstruction of the common bile duct by forming a fistulous opening for the bile externally, the cholæmia persisted in an aggravated form until death supervened in each case. In some conditions of temporary impediment to the flow of bile through the duct into the duodenum, the attachment of the incised gall-bladder to the parietal opening has relieved the obstruction and been followed by the restoration of the bile. It is in order to state that only in complete occlusion of the duct, which has proved intractable to other procedures, has an artificial opening from the gall-bladder or the common bile duct into the alimentary canal been thought proper.

My experiments upon dogs demonstrated the feasibility of this fistulous communication of the gall-bladder with the bowels, and it is a matter of minor importance by what process it is accomplished.

The statistics in the past show that the various modes of procedure are comparatively free from danger and are attended with a marked degree of success, so that we may reasonably expect cholecystenterostomy to be recognized as a safe and efficacious recourse in the future annals of surgery.

From the foregoing considerations, we make the following inferences:

1. That obstruction of the common bile duct may result to a greater or less extent from catarrhal inflammation or from gall-stones.

2. The ordinary accompaniment of any obstruction of the common bile duct is jaundice and the absence of the usual color in the fecal evacuations.

3. In the lesser developments of jaundice, medication is to be relied on for relief, but in the more accentuated and persistent forms operative measures are always requisite.

4. An exploratory operation by incision diagonally beneath the right costal cartilages enables the operator to determine upon the nature of the impediment and the best means of relief.

5. In the various cases we may resort to catheterization, needling, crushing, traction, incision of duct or gall-bladder, with attachment of either to the parietes or intestine.

6. That complete occlusion of the common duct can not be remedied by the outlet of bile through a parietal opening, but calls for a communication of the gall-bladder or the duct with the intestinal canal.

7. The duodenum affords most favorable conditions for this connection, a coil of small intestine comes next in its advantage, and the colon presents least benefits, as it fails to obtain the good effects of the bile for intestinal digestion.

8. The anastomosis of the biliary system with the alimentary canal may be accomplished by different processes, and the selection of the mode best adapted to the case may be left to the choice of the operator.

9. Permanent occlusion of the common duct associated with a patulous cystic duct is the only condition in which cholecystenterostomy is indicated, and for this condition of things it may be considered a radical mode of relief.

10. While a fistulous communication of the gall-bladder or common duct with the alimentary canal is a safe and efficacious mode of relief for all ordinary results of occlusion, it does not afford exemption from the consequences of malignant growth, and hence this kind of obstruction is not included in this paper.

A young physician, practicing in a city in Ulster County, New York, recently brought suit against a former patient, a young lady, from whom he was unable to collect a bill of sixty dollars for professional services. The defendant's attorney contested the bill, which he characterized as exorbitant. He said that many of the alleged professional calls were of a social nature. The plaintiff would call at times when he wasn't expected and keep the defendant and her sister from their household duties. In view of the annoyance and loss of time the young lady alleges that she suffered through these visits, she puts in a counter claim of one hundred dollars. The case will be tried before a jury.—*Med. Record.*

Selections and Abstracts.

THE HINDU LYING-IN CHAMBER.

In the last meeting of the State Medical Society I took the position that the usually accepted opinion among physicians of a low mortality rate among child-bearing women of uncivilized people was an error. Their ignorant practices, their filthiness, their superstition, the woful absence of any except instinctive knowledge, lead us to expect a high mortality. Any other result would set at naught all our theories of asepsis. The testimony of competent observers establishes this position; this account of the Hindu Lying-in Chamber confirms it.

"The mortality in childbed among Hindu women is notoriously high, a circumstance which is no doubt largely due to the very early age at which they become mothers. A still more potent cause, however, is to be found in the shocking, and apparently deliberate barbarity with which they are treated during the puerperium. The lying-in chamber of a Hindu family is ordinarily a little, damp, ill-ventilated hut or room in some remote corner of the courtyard or compound. In this the expectant mother is placed, and there she remains from eleven to thirty-one days, during which, according to Brahminical law, she is looked upon as unclean. There is only one small inlet to this apartment and the door is carefully closed to exclude those evil spirits, light and air. In order probably to purify the unfortunate women by heat, wood fires are kept burning in the room both night and day. The smoke has to find its way to the outer air as best it can through any chinks there may happen to be in the roof or walls, which are usually made of bamboo with a thatching of mats or straw. With the view of more effectually exorcising the unclean spirits a powder composed of peppercorns or ginger is given to the patient during the first few days; this preparation is administered either in the form of a paste or dissolved in boiling water as a tisane. It is not surprising to learn that the result of this elaborately perverse therapeusis is that something like 40 per cent. of the women subjected to it die of puerperal fever and tetanus within the first fortnight after delivery."—*Pacific Medical Journal.*

XUM

THE THERAPEUTICS OF PARTURITION.

BY C. E. IDE, M. D., CHICAGO, ILL.

It is not intended to enter upon a lengthy consideration of this subject, but to call especial attention to certain points which experience has taught are frequently neglected or unknown.

The therapeutics of labor really includes the therapeutics of pregnancy; for all through the latter state we look forward to the former, and to those means which we adopt to assist the parturient woman we should add those which we employ in preparing the pregnant woman for the coming siege.

We will consider, then, that our subject includes prophylaxis, as well as a curative and sustaining treatment during parturition itself. In addition to this, we would call attention to the use of anesthetics in labor and to puerperal convalescence.

PROPHYLACTIC TREATMENT DURING PREGNANCY.

There are many annoying conditions which may arise during pregnancy to rob prospective motherhood of its joy and satisfaction, and vest it with an aspect as terrible as that of disease itself. These we would seek to remove as simply and expeditiously as possible, one by one, as they appear, not allowing them to accumulate until our patient is worn out and in a serious condition. In fact, it is well to forestall these annoyances, and institute, by the end of the third month of pregnancy, such mild and simple, though accurate and sufficient, treatment as will make the condition a comfortable and normal one, and stimulate vital functions. And we can believe that, while we thus benefit the mother, we also surround her child with those conditions which conduce to normal, perfect development and function. In addition to this, we should watch the urine, not depending upon the presence or absence of albumen alone, but considering quantity and contents, and, not stopping here, make a microscopic examination once a week. This will avert many an unfortunate accident, and give us mental comfort and satisfaction.

These being our conclusions, how shall we go to work to fulfill them? Not, surely, by seeking some panacea which will, once for all, remove all chance of the appearance of uncomfortable conditions; not, indeed, by attempting to find one line of treatment powerful to cure or prevent all; not by becoming disgusted or discouraged and giving up altogether. No. But, believing that in quietness and confidence shall be our strength, by directing to each untoward condition which arises its own antagonist, provided for us by the constancy and assiduity of faithful minds and hands.

To take up certain conditions in detail, and consider their proper treatment: How shall we make pregnancy comfortable and normal, and stimulate vital functions? Why, by providing the cells and organs by which those functions are performed with food and tonics. We can prescribe, for instance (especially during the last three months of pregnancy), strychnine arseniate, gr. $\frac{1}{134}$, every four hours, as a vital incitant, and iron arseniate, gr. $\frac{1}{6}$, three to six times a day, or iron lemonade, to replace the waste of albumen and blood corpuscles; and these dosimetrically, that is, in small doses frequently repeated, that the desired physiologic effect only may be attained, and no overstimulation or exhaustion, the very opposite of what we desire, produced.

From the fourth to the sixth or seventh month, the time of most rapid development in the bony framework of the fetus, if we provide the fetus with some form of lime, through the mother's circulation, there will be so much the less drain upon her tissue. We can do this, and provide some phosphorus at the same time, by administering the glycerophosphate of calcium, gr. 3 to 5, three times a day. Another means of providing phosphorus is by the administration of phosphoric acid lemonade, gr. $\frac{1}{6}$, dissolved in water, several times a day, for the thirst which sometimes all but consumes the woman.

For the *irritability of the bladder*, which is often so very annoying in the early weeks of pregnancy, nothing is better than benzoic acid or benzoate of lithium, gr. $\frac{1}{2}$, in water, frequently. If necessary, some hyoscyamine, gr. $\frac{1}{250}$, every hour until the desired effect is produced may be added for sedative effect.

The number of remedies which have been recommended for the *reflex nausea*, which is so common that every woman expects her pregnancy to be characterized by it, proves to us that there are some cases which can not be relieved medicinally. For those which can there is nothing better than cerium or silver or zinc salts; with small doses of cocaine (hypodermically) added, if necessary.

Constipation, the common foe of womankind, is here universally present, except in unusual cases of well-regulated bowels, or those from which there are frequent movements, the result of chronic disease. Constipation is frequently the cause of the nausea which it is sought to relieve with remedies directed to the stomach locally. Autointoxication results from this constipation, with headache, vertigo, ocular disturbance, foul tongue, tinnitus, dyspnea, palpitation, abdominal distress, pelvic pain, sciatic pain and dysuria, or frequent micturition. The best remedy for this, and one which will serve also to quiet and sweeten the stomach, is an effervescent saline laxative. It is harmless, acts promptly, is not unpleasant to take, and produces just what we want, a fluid movement which can readily pass through a compressed rectum and carry

out with it those toxic products which often play a large part in the causation of hydra-headed eclampsia.

Anemonin, a camphor derived from pulsatilla, is administered with good effect, in dose of gr. $\frac{1}{134}$, every two to four hours, in the *flatulence* and *flushes* which prove so annoying, disturbing respiration and the heart, often provoking nausea and causing great abdominal distress. This agent also has special reference to the generative function, which it strengthens. If given in small doses there is no danger of its conducing to abortion.

Pica, the morbid craving for unnatural food, a condition which is not easily explained or done away with, is often successfully treated with hyoscyamine. In addition to this, the woman is to be allowed all forms of food or drink she craves which can with any reason be given her. I once heard Professor McLane exclaim: "Give her almost anything she craves, even beer."

For the woman who "feels as if she should fly" all the time, or at intervals, nothing is better than macrotin, in dose of gr. $\frac{1}{6}$ every two or three hours. This "braces up" the sympathetic nervous system and removes congestion from the various nerve centers. Its effect is increased if combined with strychnine.

Dropsies, arising from pregnancy are readily dissipated with apocynin, unless they be due to organic diseases of the heart, liver, or kidneys; in which case the best thing to do is to obtain a consultation, so as to share the responsibility with a brother practitioner, and induce labor, or, if earlier, produce abortion. A child born of a mother with such organic disease is not desirable to family, society or state. If the dropsy is coupled with vertigo and tinnitus, administer iron with a view to relieving coexisting anemia, or, better, hydremia (plethora); and then give a saline laxative to remove all toxins resulting from the constipation which usually accompanies both pregnancy and anemia. If the dizziness still persists, think of organic disease, in the absence of marked indigestion, or ocular disease.

As we remarked above, it is important to keep the urine constantly in mind, watching the excretion of solids by the kidneys with care. The kidneys of the pregnant woman are greatly overworked, as is evidenced by the permanent damage frequently done them at that time. We should assist them all we can, and to this end can well administer colchicine, gr. $\frac{1}{134}$, five or six times in twenty-four hours, which has a powerful action in increasing the solids in the urine, especially when combined with caffeine arseniate.

In the *fatigue*, *debility* and *somnolence* which we often meet toward the close of pregnancy, the heart should be sustained with the "dosimetric trinity" granule, which is composed of

digitalin (Germanic), gr. $\frac{1}{67}$, aconitine (amorphous), gr. $\frac{1}{134}$, and strychnine arseniate, gr. $\frac{1}{134}$. It strengthens and slows the heart, without producing too great blood tension, quickens the circulation, stimulates nutrition and brightens the whole aspect of the case.

When we feel that some form of *inflammation* threatens, or there are *distended veins* in any portion of the body, the resulting congestion clogging the circulation, we cannot do better than employ the "defervescent compound" granules, composed of digitalin and aconitine, as in the above, with veratrine, gr. $\frac{1}{134}$, in place of the strychnine. This strengthens and quiets the heart, and, at the same time, "bleeds the patient into her own arteries," removing the surplus blood from the venous system.

Last, but not least, by any means, nuclein (Aulde), gr. $\frac{1}{3}$, every two or four hours, is an excellent reconstructive adapted to all the above conditions, and administered with the utmost propriety in every case where we wish to stimulate each cell to full performance of its function.

REMEDIES IN LABOR.

So much for our prophylaxis. And, having been assiduous in our attentions through pregnancy, we should not fail amidst the perils of childbirth. We can do much to facilitate labor, and easily and simply too. When the pains are *cramp-like and distressing*, when nerve energy and muscular power fail, when the os uteri is still firm and fails to dilate in spite of rhythmic pains, and the woman is becoming exhausted and pleads: "Let me alone; let me die;" or when there is inertia, with no attempt at headway, just give the patient three granules of strychnine arseniate, gr. $\frac{1}{134}$, and of hyoscyamine, gr. $\frac{1}{250}$ (the dose should be large and fearless), and repeat in an hour if needed. After the granules have been dissolved on the tongue, the effect will be prompt and surprising. The pains will continue strong, regular and effective, from the well-known stimulating effect of the strychnine upon longitudinal muscle-fiber and the cerebro-spinal system; they will lose their cramp-like and distressing character, and the circular fibers of the cervix and lower segment of the uterus will relax, from the effect of the hyoscyamine on circular muscle-fiber; nerve energy will return; muscular power will come up to par, and the patient will feel refreshed, as after a sleep. Not the least of the good effect of this treatment is a quieting of the mind, together with the whole nervous system. Anxiety gives way to confidence, despair gives way to hopefulness, and if it be not a case of impacted head, the end will soon come.

An *anesthetic* is an important essential in the treatment of those accidents which are bound to occur, from time to time, in labor. Its use is to be entered upon fearlessly and boldly, wherever indicated. The anesthetic which is particularly indi-

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cated in the class of cases which we are considering is chloroform. It is safe, can be made as safe as ether, if we first inform ourselves as to the true cause of death in cases which succumb to its influence. The day of argument, *pro* and *con*, as to whether heart paralysis or repiratory paralysis is the cause of death in such cases has passed. We now know, without question, that the cause of death from chloroform is vasomotor paralysis; that is the chloroform paralyzes the vasomotor system so that the capillaries of the body dilate to the extent of containing so much blood that the vital centers are deprived of their necessary blood-supply, and so of their pabulum. Hence we lower the head and elevate the extremities, in collapse from chloroform, performing artificial respiration until sufficient blood has returned to the vital centers in the medulla.

Bearing in mind, then, the true cause of death from chloroform, we will set our minds at rest on the question of danger, and "push" the anesthetic when demanded, if we "brace" the vasomotor system with a hypodermic injection of the antidote (atropine, gr. $\frac{1}{134}$, to be repeated as necessary) previous to beginning the administration of the chloroform.

In the operations of forceps delivery, turning, replacing of funis, changing of position, etc., it is necessary to be confident and fearless, and push the chloroform to extremes; else that which we desire, thorough relaxation, is not attained.

With regard to application of forceps, turning and changing of presentation, my friend Dr. W. C. Abbott, of Chicago, has suggested to me a procedure which facilitates these greatly, is easily done and which brings the field of operations within reach and away from the bed and discharges. It consists in elevating the foot of the bed and placing the woman in the knee-chest position. It is a procedure often adopted in replacing the funis, I am aware; but I have not seen it recommended for the above operations. So I conclude that Dr. Abbott is perhaps the originator of this method, and I would give him the credit which he deserves, if such be the case. In this procedure the intestines and uterus, with its contents, sink away from the outlet of the pelvis, leaving room for introduction of forceps or hand, and obviating the obscuring of the region by discharges. Experience long ago proved its utility in replacing the funis.

Puerperal convalescence can be greatly assisted and accelerated by the administration of strychnine and ergotin, together with digitalin and quinine, three times a day for two or three weeks. These assist involution in uterine and heart muscle, and the energizing and contracting effect of the strychnine and ergotin upon the uterine muscle serve to close and seal more effectually any avenues by which infection might enter the circulation of lymphatics on the interior surface of the uterus. The digitalin improves vascular tone and stimulates the heart

and assists the kidneys in the excretion of the effete matter resulting from the process of involution throughout the body. The quinine is a nerve tonic and serves to abort any chills and chilly sensations arising from sapremia, or even infection. It also has a supplementary action in stimulating contraction of uterine muscle-fibre.

These, then, are the points to which it was desired to call attention; and while we medical men are bewailing the fact that our profession has, in many quarters, been dragged down to the level of a trade, it behooves us to grasp every opportunity to arise above such level and regain the heights which once our beloved work occupied. We should seek the better way, be consistently scientific, and, with docility, learn the lessons which the extremes to which the professional pendulum has swung, from time to time, have taught us. There is chance for improvement in many directions, and one such chance is that of prophylaxis, symptomatic treatment, the grappling with conditions which arise before they amalgamate and develop into something serious. Furthermore, while we direct treatment to such conditions, it behooves us to be scrupulous in our selection of means, and employ such remedies as will do the desired work without producing, collaterally, any harm. This we can accomplish by the use of active principles, rather than "whole-drug" preparations. We wish to produce certain effects, and if we can do so *cito, tuto et jucunde*, so much the better.

Confidence is a great desideratum in the practice of therapeutics, and this quality is begotten of a thorough knowledge of the means which we adopt and the results which they produce, rather than a hope that certain results will be attained. Further than this, the practice of therapeutics is impossible without power to diagnosticate correctly.

To sum up, then, the lesson to which we would call attention, we will adopt for our watchword: "To recognize the indications, to fulfill them, and, in doing so, adopt those means which experience has proved to be the very best."—*Medical Council.*

Nurse—Johnnie, the stork has just brought you a little baby. Wouldn't you like to see your little brother?

Johnnie—Naw, but I'd like to see the stork.

Having read the directions on the box, "Take one every two hours till gone," she sent in haste to the prescriber to know if he meant her or the pills.

A FEW REMARKS UPON THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.*

BY C. P. AMBLER, M. D., ASHEVILLE, N. C.

We speak and read of the early stage of pulmonary tuberculosis as though it were some well-defined and easily recognized condition; whereas, in fact, the term is used by different observers, in describing the clinical history of a case, with the greatest latitude and often with little knowledge or respect for the true condition of the patient.

As to what constitutes an "early-stage case" there seems to be the widest difference of opinion. It is the difficulty that various observers experience in following a standard as to classification of patients that makes the statistics of cases published as cured so unreliable. One observer may use the greatest care in classifying, with the result that he shows a large percentage of cures in a given class. Another observer does not discriminate so carefully, fails to get as good a percentage cured, doubts the veracity of the first observer, creates discord and incredulity among the profession, and thus not only damages the reputation of the profession, but creates distrust in the minds of the public generally.

Before Koch discovered the tubercle bacillus a case was almost always classed as an early-stage case, provided the general appearance of the patient remained fair. Since that time we have learned to rely more upon certain physical signs, we have been much more thorough in our examination, and while we still rely upon the microscope to confirm our diagnosis absolutely, we are beginning to recognize that there is a possibility of making a diagnosis before the stage of expectoration has been reached.

Before Koch made this discovery but comparatively few cases were recognized as tuberculosis before they were hopelessly advanced; the physician having at hand no absolute means of diagnosis, he was perhaps prone to give the patient the benefit of the doubt, and with the results following it is no wonder that the laity to this day consider the disease incurable.

The profession to-day have, almost without an exception, recognized that the disease is curable, the prognosis depending in great part upon the diagnosis being made early; it will take the laity generations to realize and appreciate this fact.

I believe the profession of Asheville will bear me out in the statement that but comparatively few of the many cases sent here are what we should call early-stage cases.

It has been my experience that the early-stage cases met with here are in the persons of friends or relatives accompanying some more advanced patient. Becoming fearful that

*Read before the Buncombe, N. C., County Medical Society, October 4, 1897.

their association with tuberculous patients may have resulted in infection to themselves, and after being instructed upon the advantages and necessity of an early diagnosis, they present themselves for an examination, with the result that we frequently find evidence of a morbid process going on in the lungs unsuspected.

So-called first-stage cases usually embrace all cases up to the point of moderate infiltration in the lung, and possibly bordering on active cavity formation, without the advanced general symptoms.

As our experience in this disease grows we are becoming dissatisfied with the old classification. The first or early stage is being limited nearer to the time of infection; our early-stage cases to-day are those recognized before the stage of expectoration.

We have long recognized such a condition, and the tendency has been to call this a pretubercular state, or to convey to the patient the impression that he is threatened with tuberculosis.

Statistics from all observers go to show that those cases recognized during this period, or immediately following it, almost invariably do well, regardless of what certain line of treatment is followed, provided certain hygienic laws are observed.

Unfortunately, a large percentage will not consult us until the disease is well advanced; here we can, at least by the exercise of a little patience, early determine the true state of affairs. It would seem that no physician is excusable where a proper diagnosis is not made when the period of expectoration has been reached.

That such mistakes are made, however, we all know—made, too, by carelessness on the part of the physician, following a hasty physical examination; made often without removal of the patient's clothing. Without the use of a stethoscope, without the use of a fever thermometer, without a microscopical examination of expectorated matter, an opinion is given that the patient has "bronchitis," a "weak lung," or an ordinary "cold." The opinion coming from a physician in whom the patient has certainly some confidence, and often considers a smart man from his being able to so quickly pronounce his lungs sound, he goes off, takes the tonic prescribed, and for weeks goes about his business, losing his golden opportunity, relying upon the opinion given that he "will shortly be all right."

Again, he consults some timid brother of ours who, by the exercise of more care in his examination, arrives at the proper conclusion, and who, through mistaken kindness, does not tell him the truth; advises him to go to Asheville, that his lungs are weak—leaving for the Asheville physician to tell him his true condition, when, if he had been told the truth at once, he

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would have exercised more care and had more chance for recovery.

It is not the purpose, however, of this short paper to show why mistakes are made in diagnosis through carelessness on the part of the physician, but more as a plea for earlier diagnosis and to bring out a discussion as to the possibility of making a diagnosis before the stage of expectoration, at which time any careful observer is bound to arrive at the proper conclusion.

I have for years advocated that when a physician is attending a case of pulmonary tuberculosis he should, at least once a year insist upon a physical examination of each member of the family, regardless of the subjective symptoms. Supposing, of course, the physician to be proficient in making a physical examination, he is certain, sooner or later, to find suspicious symptoms of a morbid process in the lungs of certain individuals. When his suspicions are aroused let him follow up the case carefully, and such cases as are tuberculous will have a much better prognosis for their being thus early determined.

I am informed by a cousin of mine, who has lived in Japan for years, that in certain parts of the empire the physician is free to examine the premises or any member of the household where he is employed at any time; he is paid a certain fee every year, provided no sickness occurs, and in case it does occur, he is compelled to attend the case without charge for the period during which the sickness continues, the disease being supposed to be the result of his neglect.

The subjective symptoms present before the stage of expectoration are so indefinite, if any exist, but that little importance can be attached to them. An exception to this occurs, however, when the patient has a hemorrhage from his lungs as the first indication of lung trouble, or where a dry, chronic cough persists without apparent cause being found in the throat.

Pain, unfortunately, is rarely, if ever, complained of at this time. Unfortunately, I say, because if it were the rule, instead of the reverse, we would see our patients much earlier.

There can be no doubt that certain objective symptoms are always present long before the patient begins to expectorate, and if the physician had the opportunity of examining the case at this time he might demonstrate the same; moreover, if the physician had some means of coming in contact with the patients earlier it is quite likely that such clinical history would have resulted long ago in a better appreciation of the symptoms present at this the earliest stage of the disease. If, after a rigid examination, we are able to detect a slight relative dullness upon percussion; if we can determine a circumscribed area of harsh, rough, or bronchial breathing; if we find prolonged expectoration or interrupted respiration; if we

can detect a suspicion of rales; if we can demonstrate either of them alone or associated one with the other, we should strongly suspect some morbid process, and, watching our patient carefully, should never relax our efforts until we have proved to our entire satisfaction that no tuberculosis is present.

Having our suspicions aroused, how shall we proceed to demonstrate that our supposition is correct; or, rather, how shall we proceed to show that no tuberculous deposit is present? First, and always, let us be on our guard against making a hasty diagnosis, or expressing an opinion before the patient which will in any way be construed by him as meaning that the trouble is slight. If you so assure him now, you will very likely have no further opportunity for investigation until he returns to you well advanced in the tubercular process.

In the absence of stronger evidence than above enumerated, Koch would have us give our patient a test dose of tuberculin. Experience has shown that it will assist materially in clearing up a doubtful diagnosis under such circumstances; but will not a drug which is capable of exciting a sudden rise of temperature from one to four degrees above the normal, when placed in the circulation and thus brought directly in contact with a tuberculous deposit, at the same time excite the deposit, which may be latent, into a more active process? Or, may it not, and, in fact, does it not, only produce this rise of temperature by the local congestion or inflammation of the diseased area? Are you willing to risk the consequences? Do you believe you would carry out such a procedure in your own person under such possibilities? If you would not, you have no right to use it upon your patients.

Such a method may do for testing cattle, but it will be slow in becoming a popular method with our profession. It is like hunting for a gas leak with a lighted candle.

Attempts are now being made to show that a blood examination at this early period will reveal an existing tuberculosis as certainly as will the presence of bacilli in the expectoration later on. Such a method would have everything in its favor. We trust there may be much in it, but in our ignorance we doubt it.

Being unwilling or unable to use either of these methods, we still have great resource in the temperature of the body. I have never seen a statement as to the time the temperature begins to deviate from the normal in pulmonary tuberculosis. This much I know, however, from my own observation, that it is not unusual for a slight daily rise to occur before the stage of expectoration has been reached.

To be of any service whatever the temperature record must be taken with the greatest care; the temperature should be observed every two hours for a period of several days, and an

exact record of the same kept for comparison. A continuous normal temperature for several days or weeks does not exclude tuberculous deposit, but a slight rise of one or one and a half degree daily, when existing in connection with certain physical signs as enumerated above, does go far toward confirming our suspicions. Suppose such a rise of temperature is found associated with nothing more than slight relative dullness or harsh breathing over a circumscribed area in the lung; the symptoms continue for weeks, with perhaps intervening days when the temperature is normal; no other cause can be found. You are forced to reason by exclusion. What do you conclude? What can you do but conclude that you have a tubercular deposit at its early stage?

Dr. Babcock, of Chicago, at the last meeting of the American Climatological Association, held in Washington this summer, stated, in discussing this subject, that "a variation of one half-degree or one degree from the normal daily temperature caused but little import." My experience certainly does not confirm this.

In all cases where I have observed the patient for weeks preceding the stage of expectoration, I have invariably found a fluctuation of the daily temperature.

At a recent meeting of the society I alluded to the fact that we occasionally meet cases where the question of diagnosis between early tuberculosis and a beginning or mild type of typhoid fever was difficult to determine until after the lapse of several days. At that meeting one of the members took exception to what I said, and remarked that the symptoms present in typhoid fever were always sufficient to enable one to make a diagnosis. I wish to repeat that I do not believe all cases of typhoid fever must necessarily be severe in form, and, further, that the symptoms of a mild case, especially in the beginning, are in some respects similar to those observed in early tuberculosis. Moreover, the acute exacerbations of a tuberculous fever in the so-called first stage are sometimes mistaken for symptoms of other diseases, notably a common cold or typhoid fever, and are treated as such.

Let us remember that an early diagnosis is of more value, in reference to prognosis, than the administration of drugs.

So far as possible, let us examine the members of families we treat, especially so when some member is already suffering from tuberculosis, and, finally, let us remember that certain physical signs, when found concomitant with a daily rise of temperature over a series of days or weeks, are strongly indicative of tuberculosis, and, where the slight rise of temperature can not be otherwise satisfactorily accounted for, no hesitation should be entertained in pronouncing the condition probably one of tuberculosis.—*New York Medical Journal.*

THE FOUR YEARS' COURSE FROM A MEDICAL STUDENT'S STANDPOINT.

Many of the leading medical schools now require a four-years' course of study before the student shall be graduated and receive his diploma, and many more schools, urged on by the professors, the students and the medical fraternity, are making constant efforts to "raise the standard of medical education." All this in itself is praiseworthy, and meets the hearty approval of all concerned, but there may be an honest difference of opinion as to the best method to be adopted in order to bring about this very desirable result. The reason for the necessity of this additional year's work on the part of students, with its added expense and labor, is said to be that the standard of medical attainments required has advanced so rapidly that it is impossible to cover the present field in a three-years' course, and that therefore, a four-years' course of study has become necessary.

Now the present is especially a utilitarian age, and money and labor-saving devices and methods are largely in evidence; consequently, it becomes an open question whether students should be required to lengthen their course of study when the same and even better results could be accomplished by the employment of better and more scientific methods of teaching. In mere justice to the student, should not the resources of the best educational methods be exhausted before another year is added to the curriculum, and a four-years' course of study made obligatory? It is greatly to be questioned whether the student will gain enough by this added year of labor, so long as the present system of medical instruction prevails, to at all compensate for the time and money expended; and it is certain that if the methods in vogue in other departments of educational work were given a trial in our medical schools, that the graduates after three years' study, or perhaps, even after a two-years' course, would be better prepared and equipped for their life-work.

It is matter for grave doubt whether the evils which afflict our present plan of medical education are so much due to lack of time as to faulty and inadequate methods and to the poor quality of teaching. Before the faculties of our medical schools decide that a student must spend a fourth year in training for the medical profession, should not something be done to bring medical instruction under the same wise plan which now prevails in every other department of educational work, and should not some effort be made to increase the quality as well as the quantity of the instruction? Is it not about time that something be required of the professors in our medical schools besides the fact that they are successful physicians, accomplished talkers, members of certain cliques, or animated by a due respect for the acquirement of the loaves and fishes?

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All these, no doubt, are very necessary accomplishments, but should not the teacher at all worthy of the name be actuated and inspired by something different and better than all this?

According to the best exponents of that newer system of teaching of which Pestalozzi was the forerunner and founder, and which culminated in the theories of Hegel and the methods of Froebel, the basic principles upon which a successful plan of education rests, are first, interest; second, apperception; and in order that the student may get the full benefits of his labors, it is absolutely essential that these two principles should be given due consideration both in arranging the course of studies and in the methods used in conveying instruction. When these two basic principles—which have come to be considered the moving power in the modern educational system—are combined in one plan, then much has been done toward assuring the great object of education—the unfolding, the growth, the development of the human mind.

The so-called theory of apperception has worked out and is able to state the laws which govern the processes of mental assimilation: "We build the new upon the old; our grasp of a new idea is controlled by the character of the older group of ideas already existent in the mind, and all teaching must aim at preserving a certain relation between the new material offered and the present content of the mind. A study of the processes of apperception gives the death-blow to the theory that the mind can be filled with and retain isolated facts. The new idea must find itself at home, it must be at once welded to the old or it will rapidly slip away. To apperceive, however, requires mental activity, and this can be assured only when the mind occupies that attitude toward a subject which is denoted by the term 'interested.'"

Now the curriculum of our medical schools, no matter what may be urged in favor of its logical sequences, violates the law of interest at the start, for the thing which gives anatomy, pathology and therapeutics their interest in their application to medical and surgical diseases, yet the student is compelled to wrestle for two years with the hard and dry-as-dust facts of these very necessary studies unaided by that impetus which the presenting of the more interesting parts of the course would give him and uncheered to that greater assimilative power of mind which only interest in a study can produce. Not alone is the present arrangement of the course of medical studies fatal to interest, but the laws of apperception are rendered of no effect, for the benefits arising from a stimulation of the apperceptive faculties depend to a large extent upon proper correlation of facts; that is, the value of new facts depends upon perceiving their relation to other older facts. The facts of anatomy and of therapeutics become of value when closely affiliated with the treatment of medical and surgical disease, but when a delay of months or even

of years intervenes between the presentation of these related subjects, a loss of the old ideas necessary for apperception results, and the student has an imperfect grasp of the new ideas. As a certain distinguished educator in treating the subject of medical instruction, has said: "Medicine is a difficult science to teach at the best, yet our medical faculties arrange a curriculum which both displays their pedagogical ignorance and adds to the labors of the student."

Another fault of the system now in use is that there is no consultation and no consequent concerted action among the professors as to how and what they shall teach. How much time in most medical schools do the different professors spend in adjusting their individual courses so that there shall be harmony in the instruction given by the various chairs. Does Professor A. ever know exactly what Professor B. is doing and saying, so that where their fields approach each other there isn't a blind path in which the poor bewildered student, now traveling awhile in this direction and now awhile in that, doesn't finally have to give up in despair, seeing no guideboard to direct his footsteps right?

The anatomy taught by the holder of that chair should be identical with the anatomy of the chair of physiology, for each of these professors must necessarily trespass somewhat upon the other's domain. The chemistry of the physiology teacher should be the chemistry of the chair of chemistry, and the same holds true of every branch taught in a medical school. Let there be no conflicting teaching among the different chairs. There is no such thing possible as slicing up the science of medicine into its component branches and have each branch stand out an isolated science in itself; but the territory of one teacher must necessarily encroach upon that of the others, more or less, and where this common ground occurs there should be no confliction. What can be more discouraging to a student than to hear from one professor that a certain thing is so and so and then hear another professor give it in a different way. Professor A., for instance, says that urea is the ultimate product of nitrogenous oxidation, while Professor B. declares that uric acid, and not urea, occupies that position in the metamorphic scale; or, for another example, the anatomy professor teaches him that the pigment in the eye belongs to the choroid, and forthwith armed with this knowledge he goes before the opthalmology professor, who "hauls him over the coals" for not knowing that the pigment belongs to the retina and not to the choroid.

The chair of surgery teaches that fixation and rest is the proper treatment for a luxated joint, but the orthopedic professor insists that fixation and rest are dangerous and that passive motion is the only safe method. So it is all the way along, one professor making one statement and another contradicting it because time has not been spent in looking over

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one another's work with a view to eliminating monotonous repetitions and conflicting statements, and thus lightening the burden of the overworked student.

Even in anatomy, where one would think there is little ground for dissension, different professors of the subject have different ideas, and we find discord and hobbyism. Some teachers endeavor to impress their listeners that the whole science revolves around some insignificant point to which they happen to be first to call attention, wasting hours of valuable time over a matter that ought to have been disposed of in a word, and neglecting more weighty subjects which, once passed, the student has no time to recall. Woe be unto the medical student who is forced by circumstances to complete his studies in another school. While we can understand how teachers in different colleges may differ in their theories, to differ in facts is inexcusable, for a teacher should confine himself to facts, and facts should not differ the world over. A pupil in the common schools doesn't need to learn a new kind of arithmetic every time he changes teachers, neither should a medical student be forced to learn Professor B 's therapeutics if Professor A. has already taught him all the essentials. All the antiquated notions that the effervescent science of medicine is prone to are retained by some teachers and injected into their courses and the student is expected to loyally idolize these valueless and obsolete methods or remedies as the teachers themselves do.

An old philosopher, being asked the hardest lesson he ever had to learn, replied that it was to forget those things which he had learned wrong. So the poor medical student, bemuddled with two sets of teachings on a subject sometimes gets them twisted, and instead of answering Professor A. according to Professor A.'s idea, offers him Professor B.'s teaching and gets —plucked.

But the worst feature of all is the note-taking, a system by which the brain is compelled to descend from its high throne of absorbing and assimilating the thoughts in what is being said, and becomes a mere tool to transfer the thoughts into words that it may be referred to later, in which process a goodly portion is lost, and the result is often a meaningless jumble, for only a very few indeed are capable of taking readable notes. While the professors one and all condemn the habit they *compel* students to practice it. And why? Because the so-called didactic lecture is the skimmings of the various textbooks, is often a Babel of authors intended for a pie, but quite as often it proves only a hasty pudding that gives the student a wind colic. Now let us suppose that a student endeavors to follow the advice of his teacher and takes no notes, but gives his whole attention to the lecture and goes home. He revolves the subject in his mind, and as he does so he perceives portions, here and there, whose details he can not fully

remember; then he consults his text-book (the one recommended by his teacher), and to his disappointment and disgust he can not find in it what he is searching for, or if he be fortunate to find it as likely as not there is a disagreement between the teacher and the text-book. He knows that the professor will insist on questions being answered only according to his own individual teaching, hence what is there left for the poor student but to get a note-book and become the disciple of the note-book fiend. All this could be remedied by allowing the didactic lecture to die the death it is destined, substituting for such a worn-out apology for imparting knowledge, the modern methods employed in other branches. But the didactic lecture in spite of all its infirmities will die a hard death, for the modern spirit of commercialism, which bolsters up its tottering form, is a factor too powerful to be downed by simple condemnation. The opportunity for self-aggrandizement and pecuniary gain, consequent upon the occupancy of a medical chair, are too tempting for the ordinary man and he never wastes any time or experiences any remorse of conscience in accepting a position for which he is in no way adapted. Let but the medical chair be stripped of its pecuniary emoluments and the holder thereof be actuated solely by a desire to impart knowledge, then medical schools would die off like house-flies with the approach of autumn.

Following the formula laid down by one of the best of our Maine educators in speaking on a kindred subject, it might be stated that the medical school exists solely for the good of the students, and that outside of this function there is no good reason for its existence; and yet, when we come to analyze the methods of instruction in vogue, we are almost forced to conclude that the present system was inaugurated and has been kept up because it was solely for the interest of the professors. Little can be aid in favor of the didactic lecture system except that it is a lazy man's method and a time and labor-saving device for the teacher. By this plan the professor is able to cover a course in hours, which, if properly presented by clinical instruction, would require weeks. It is a good plan for that sort of teacher who is so indifferent to his high calling that all he thinks of is getting his work done in the shortest and easiest way, but why should the student be expected to give time and money for the mere hearing of facts which he can glean for himself from any well-written text-book? Telling facts can hardly be dignified by the title of teaching, and such hurling of repeated volleys of facts at the students' heads, in hit-or-miss fashion, is hardly in accordance with modern ideas of instruction.

The didactic lecture is in no way conducive to the development of thoughtfulness and reflection, and it fails signally to arouse that mental activity and interest upon which a teacher's real success always depends. It is certain that if the

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faculties of our schools have nothing to offer the student in compensation for a fourth year of study except another year's time spent in listening to didactic lectures that the best interest of the students will be subserved by reforming the methods of imparting instruction rather than by prolonging the course.

In the recitation system the student commits to memory a certain number of pages of a text-book and the recitation which follows is, in the hands of most teachers, little more than a test of how many of the facts the student has retained. This plan is a great improvement on the didactic lecture system in that direct cramming is better than that which comes indirectly through the note-book, but nevertheless most recitations as now conducted are merely wretched substitutes for proper educational exercises. Medical examinations, the crowning feature of the whole system, are simply memory tests, and "plugging" at quiz-compends arms the student with a large number of facts which he is prepared to shoot at his inquisitors.

The whole system of medical instruction as now employed is a mere filling-up process, wherein the brain is looked upon as a mere passive, receptive organ yearning to be filled, and the much more important fact that education should serve to unfold and develop the mind is lost sight of. Cramming a mind with ill-digested and soon-forgotten facts may be a masterly feat in mental drudgery, but such mere "grinding" can hardly be called an educational process. The recitation in the hands of a trained and well-equipped teacher can be made a source of great profit to the students, but not so long as it serves merely as means to extract a lot of memorized facts. A receptive mind merely stuffed with facts by no stretch of imagination can be called an educated mind.

The two most important functions which the physician is called upon to perform are making a diagnosis and the application of therapeutic measures to the cure of disease. The methods at present employed in the medical schools give the students little insight into the applied science of either of these branches of medicine. Many students are graduated every year who have never seen, all through their college course, a single case of any one of the acute diseases, and their knowledge of applied therapeutics is limited to hearing the treatment which some professor gives to such chronic cases as attend the so-called clinics. The very things which the physician most needs after he gets into practice are grossly neglected in the present system of medical instruction. Medicine as it ought to be taught is seen only in the special courses furnished by our post-graduate schools, and it is needless to say that if medicine were taught in anything like an adequate manner in our medical schools there would be little need for so many post-graduate schools with their hosts of teachers and

legions of students hungering and thirsting for true medical knowledge. Whatever may be said as to the value of the work which the post-graduate schools are doing, the fact can hardly be gainsaid that if our medical schools did their work as it can and ought to be done the demand for post-graduate instruction would not be so urgent. The mere fact of the increasing number of these schools is in itself a striking commentary on the whole system of medical education.

When methods calculated to arouse and hold the interest and to kindle and stimulate the apperceptive faculties have taken the place of the curriculum as at present arranged, when by reason of natural abilities and proper training, professors in medical schools have come into some fitness for their work as instructors, when the clinical lecture shall have superseded the obsolete didactic plan, when students shall be given some opportunity to diagnose and study diseases as seen in patients rather than as presented in text-books, when recitations, instead of being parrot-like performances, shall be so conducted as to awaken and stimulate thoughtfulness, perception and reasoning power, and when all the methods of medical teaching when conbined shall result in "producing clearness, quickness and soundness of observation, a mind capable of retaining and readily recalling what it has learned, with power to combine and use what it knows, able to grasp the general principles which underlie particular cases, rapid and sagacious in drawing inferences, sound and wise in reasoning, full of interest and pride in its work, moved by a sense of what is good and true, energetic, honest and strong in purpose," when all these desirable and not impossible results have been achieved, then, indeed, will the professors have done their full share towards lightening the burdens of the students, and then, indeed, will the quality of medical instruction have become so improved that there will be no need, at present at least, for increasing the quantity of medical teaching, and a three-years' course will be found ample to fit the student for his work and will result in making him a credit to his college, his instructors and his profession. In short, when the professors do something like the duty, which, in the light of modern educational methods, they owe to themselves, to their calling, to the profession and to the students, then, indeed, would it seem to be time enough to inquire whether the quantity as well as the quality of medical instruction needs to be increased.

If it indeed be true that the requirements of a modern medical education have become so vast that the faculties of our schools feel warranted in demanding of students another year of time, study and tuition, then surely the students, in their hard struggle to reach such a high goal, have a right to demand from their instructors the very best system of instruction which modern educational science has been able to devise and to expect that each individual professor shall not alone

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be a professor, but also a teacher, armed with all the natural ability, training and zeal which that term implies and which the vocation now demands, so that he shall be so devoted to his duties as instructor that nothing in the way of other engagements, lack of time, commercialism, self-aggrandizement, indifference or indolence shall stand in the way of his giving to the students the best medical education possible, and if the professor falls short in any of these very necessary qualifications and attempts to excuse his shortcomings by relating legends as to how busy he is, and that, consequently, he can not, for the remuneration offered, take sufficient time to fit himself as a modern teacher or to impart instruction in a proper way; then, indeed, how can such a poorly-endowed professor have the assurance to ask students to devote more time to their studies, when he himself so signally fails in the duties which he owes to himself, to his vocation and to his school.

The writer wishes to acknowledge his indebtedness in preparing this paper to Professor Richard G. Boone, of the Michigan State Normal School, to Professor Montgomery A. Crockett, of the University of Buffalo, N. Y., and to the *Educational Review*.—J. B. WOODS, M. D.—*Jour. of Med and Science.*

THE PREVENTION OF GONORRHŒA.

A. Neisser recommends the method proposed by Blodasewski. It consists in instilling (not injecting) a few drops of a two per cent. solution of nitrate of silver into the meatus after coitus, a drop also being allowed to flow over the frænum. Experiments have shown that a two per cent. solution of silver nitrate kills the gonococcus.—*Med. and Surg. Reporter.*

FOR COLDS.

We find in the *Therapeutische Monathepte* a remedy by Wunche for colds, which, he says, in the early stage acts almost as a specific. A mixture is prepared composed of from one to two parts of menthol and twenty parts of chloroform; of this, from four to six drops are placed in the hollow of the hand, the hands quickly rubbed together and placed over the face, inhaling deeply through mouth and nostrils. The application can be repeated two or three times during the day if necessary.—*The Med. Times.*

DISINFECTION AFTER THE OCCURRENCE OF INFECTIOUS DISEASES.

BY S. W. ABBOTT, M. D., BOSTON, MASS.

It is not my intention in this brief paper to present an exhaustive statement of the subject of disinfection, but to present a brief digest for practical use.

The object of disinfection is the destruction of infection, or infectious material (in the words of one of the best authors, the *contagium vivum* of disease). The practical question then, in each case of infectious diseases, is *what is the best disinfectant for use in this particular case, and how shall it be applied?*

Infectious diseases differ in their character, their virulence, and their mode of transmission, as much as do the various diseases of plants, and the different insect pests with which the argiculturist has to deal, and for each of which he must provide himself with some particular insecticide, as a weapon of defense. Now it is Paris green, now tobacco smoke, now whale-oil soap, etc.

Just so, different disinfectants are needed for different purposes, and as medicine is a progressive science, so the science of disinfection to-day is quite different from that of a dozen years ago.

Let us review very briefly, the principal means of disinfection in use at the present time, and the methods of their use.

First. Actual *destruction by fire.* This is undoubtedly the most thorough and certain method, but is only applicable to organic substances and such as are worthless, or can not be disinfected by other methods. It may be applied to infected clothing, rags and bits of infected cloth, such as are contaminated with infected discharges from the mouth, nose, throat and other parts of the body. Mattresses, saturated with infectious material, upholstery and cheap furniturne, which are not deemed worth disinfecting by other methods, may thus be treated. Infected school books and library books, especially when worn and of little value, may be destroyed by fire, in preference to running the risk of using them without treatment.*

In the treatment of one or more cases of small-pox, in the milder seasons of the year, the writer has found an efficient method to be the selection of a suitable location, remote from the inhabited districts, and there treating the patient in a good army tent, which can be burned after the recovery or death of the patient, with the bed, bedding and furniture.

Second. The *application of heat.*

(a.) *Dry heat.* Exposure to a heat of 150° to 250° F., according to the nature of the disease for which disinfection is

*Formalin has been recommended for disinfecting books, but its use for this purpose does not yet appear to be settled. Authorities differ with reference to the practicability of disinfecting the interior of a tightly closed book.

required. Special apparatus is required, and the method is inconvenient for ordinary use, in consequence of the liability to overheating and consequent injury of the fabrics, or substances to be disinfected. (This statement does not apply to the use of sterilizers in hospitals and public institutions having the temperature under careful management and control.)

(b.) *Moist heat.* (1.) *Steam.* Steam disinfectors are now in use at all the principal quarantine stations, and in the large cities for the disinfection of infected clothing, bedding, mattresses, carpets, metallic surgical instruments, and all material which is not liable to injury by steam. Every city of 25,000 inhabitants or more ought to have at least one such steam disinfector, either portable or stationary, for use under the direction of the local board of health. (Good descriptions of such apparatus may be found in the reports of the boards of health of large cities—not only of Paris and Berlin, but also of New York, Philadelphia and Boston.) (2.) *Boiling water.* This may be used for bed linen, clothing, sputum cups, cuspidors and metallic surgical instruments, metal and crockery ware.

Third. *Chemical disinfectants* have well-defined powers for the destruction of disease germs, as determined by experiment. Of these, the most efficient and useful in liquid form, are solutions of carbolic acid, chloride of lime, bichloride of mercury, lime water and milk-of-lime. A good disinfectant for general use should be inexpensive, readily soluble in water, and capable of easy and rapid application. As a general rule, disinfectants in the crude form and in bulk, are both cheaper and more efficient than patented articles.

Crude carbolic acid is soluble in water in the ratio of about one part to 30. (About four ounces to the gallon.) A solution of one part in 400 will destroy most bacilli, but not their spores.

Bichloride of mercury. (Corrosive sublimate.) One part dissolved in 1000 parts of water will suffice to destroy disease germs of all sorts in less than ten minues, and ordinary bacilli,* in less than one minute. The extremely poisonous character of this solution makes it necessary to take special precautions in its use. Its property of forming insoluble compounds with albumen, also seriously interferes with its efficiency.

Chloride of lime. This is one of the most efficient disinfectants and may be used either in powder or in solution; in the latter case, in the proportions of two parts of chloride of lime to 100 of water.

Either of the foregoing may be employed for application to walls, floors or wood-work.

Milk of lime. (Common whitewash.) This constitutes a very

*Ordinary bacilli, i. e., most common forms of infectious diseases. The spores of anthrax require longer time, but anthrax is a disease of rare occurrence in the U. S., and when it does occur as a result of infection from the lower animals, it rarely spreads.

efficient disinfectant for use in the disinfection of excreta, by mixing it thoroughly with the excreta in equal bulk. It may be prepared by sprinkling a quart of water gradually over a quart of quick-lime in broken pieces in a wooden or metallic vessel. When the lime is reduced to powder, three quarts or more of water should be added, and the mixture allowed to stand. This was highly recommended by the German government in its cholera circular of 1892. It may be used for the flooding of areas and concrete floors in liberal quantities.

Weaker disinfectants are the permanganate of potash, and the sulphates of iron, copper and zinc. Either of which may be employed in a 5 per cent. solution.

Gaseous disinfectants. The principal disinfectants in gaseous form are sulphurous acid, chlorine and formaldehyde. Disinfectants of this character are employed for the disinfection of rooms which have been occupied by the sick. Chlorine gas is but little used in consequence of its extremely irritating nature. The use of sulphur is also rapidly losing ground in consequence of its foul odor, the occasional injury caused by it, and the fact that it frequently fails to accomplish its end, as shown by experiment. When used, the sulphur should be broken up and burned in an iron vessel, in such a manner as not to endanger the safely of the wood-work, since fire is not an uncommon occurrence, if it is carelessly used. At least three pounds should be used for each 1000 feet of air-space, and the disinfection will be much more thorough in the presence of moisture.

Recently the use of *formaldehyde* has come to the front very prominently as a gaseous disinfectant for use in apartments after infectious diseases. Its ready application makes it quite desirable for this purpose, and the best authorities, as quoted in the late numbers of Koch's *Zeitschrift*, show that it can be depended upon for the disinfection of surfaces, but not where penetrating power is required. In this direction, too much can not be expected of any disinfectant. For example, nothing has yet been found which will thoroughly disinfect the interior of a tightly-packed bale of rags, in a reasonable length of time. It is also difficult to disinfect the interior of closed school books or library books, provided the leaves are not loosely opened out. I mention this as a practical matter, since books are often exposed to infection, when used by sick children.

Every city and town should be provided with some good form of apparatus for the generation of formaldehyde, for disinfecting purposes.—*Richmond Journal of Practice.*

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A PROTEST AGAINST THE FEAR OF DERMATITIS ORIGINATING FROM EXPOSURE TO THE ROENTGEN RAYS.*

BY G. H. STOVER, M.D.

Assistant in Medicine in the University of Denver.

There is gaining ground in the minds of the laity at the present time in this city an unfortunate fear of burns from the X-ray. It has grown to such an extent as to seriously hamper some of our surgeons who appreciate the value of the X-ray in diagnosis and treatment. I attribute this fear to two principal causes; one is the fact of a publication some time ago in a sensational New York daily of the case of a young lady, one side of whose head was burned to such an extent that the hair on that side was lost. This paper gave a lurid description of the injury, with the usual horrible illustrations, and the story was widely copied by the press of the whole country. The other cause of fear in Denver was the reported severe burning of the hands of a local X-ray operator. The affair was given wide publicity by the city press, articles appearing for some days.

The present course of this local electrician is calculated to alarm still more the already timid laity. I understand that the prospective subject of X-ray investigation is required to sign a waiver of damages, on account of injury from the X-ray. These elaborate precautions can not fail to impress upon the patient the notion that the X-ray is a very dangerous agent. Of course, there is some argument in favor of such precautions if the operator is timid, unskillful, or wealthy; in my own case, the first and last conditions at least, are not found, so I do not believe such precautions necessary. And any way, in the present state of nearly perfect apparatus, I think the physician who gives a dose of calomel might almost as reasonably exact a release from the patient, for the reason that certain unfortunates have lost their teeth as a result of salivation. I have tried to see the Denver operator who was said to have been burned, but have been unable to do so; I have heard from various parties who claim to know him, various reports; one said that one hand was burned; another that both hands suffered; another added a severe burn of the chest; my last informant said it had been a case of German measles!

At this time I feel like saying a few words to the members of this society, to tell them that the X-ray is not at all the deadly weapon that some suppose it to be; that with an X-ray generated by proper apparatus and applied by a competent operator, there is no danger of burns. In making this

*Read before the Denver and Arapahoe Medical Society, February 25, 1898.

statement I wish it distinctly understood that I cast *no* reflection upon the skill of the operator whom I have mentioned; that would be absurd. He is known to you all as an electrician of ability; some of the pictures he has produced are as fine as have been produced in the country, and he deserves great credit for his enterprise, manifested at a very early period in X-ray history, and his courtesies to the medical profession of the city and State will long be remembered. A great deal of his work was done without any thought of monetary compensation.

My claim is that all the burns that have followed the use of the X-ray are the result of:

1. Improper apparatus.
2. Too long exposures.
3. Too small a distance between the tube and the object being skiagraphed.

As to the first, I want to say that the induction coil is not a proper agent for the generation of the current that is applied to the tube. The static machine is what should be used. The static, Franklinic, or influence machine, as it is called, will, when of a proper size, give just as good a fluoroscopic image, just as good a skiagraph as the most efficient induction coil, and without the disadvantages of the latter; the Franklinic machine never heats the tube over blood heat, and usually the tube remains *cool*. It is not necessary with the static machine to stop operation and cool the tube; neither does one have to keep a fan blowing upon it to keep it cool. The static current never causes the tube to become red hot and puncture at the point of exit of the rays. The snapping of the spark, so disagreeable in the coil, is obviated by the influence machine. A good tube may be kept in operation for hours without deterioration of the ray. There is never any danger of "burning out" a static machine, thus ruining the whole apparatus, as is the danger with a street current and coil.

I have never known of a case of dermatitis following the use of the Franklinically generated X-ray when used in a rational manner. I am informed by Prof. S. H. Monell of Brooklyn that the static machine has produced six or eight burns, but that a disrputive discharge was used. This is not a proper current.

As regards the second and third factors in the production of X-ray burns, it should be said that with the highly efficient tubes we may now procure, there is no need to place the object of investigation in dangerous proximity to the tube, nor are the hour and a-half exposures any longer necessary. The object should not be placed too close to the tube, as the image is thereby distorted, which I shall show more fully in a future paper.

The chief factor in the causation of X-ray burns, however,

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lies in the kind of current applied to the tube. This should properly be generated by a powerful Franklinic machine, and the *convective* discharge should be used.

Prof. Monell, who is a leader in this line, and other investigators have an experience similar to mine in the use of the Franklinic machine for X-ray work.

Every day, for a longer or shorter time, I am bathed in the X-rays. Probably thirty times I have stood for fifteen minutes at a time, with my chest a couple of inches from the tube, while others were looking at my heart and other internal structures through the fluoroscope. My arms and hands have been examined by fluoroscope and skiagraph a great many times. The hip, foot and knee have also been frequently subjected to the X-ray. I frequently place my face within a few inches of the tube, so that others may view with the fluoroscope the weird picture of a living skull, and I have not experienced the slightest ill effects. I use a Waite & Bartlett eight-plate influence machine, convective discharge, and at present a Monell tube with twelve inches between external electrodes, exhausted to one one-millionth of an atmosphere.

I cite these experiences of my own simply to show that I believe it, when I say that there need be no danger of X-ray burns.

As to the burns which have occurred, I believe them to have been directly or indirectly the result chiefly of too heavy electrical discharges in operating the tube.

As little is known as to the exact cause and nature of the so-called burns as is known of the nature of the X-ray itself. It must be a penetrating agent, for there are reported, and I have seen, neuritis and periostitis, as well as dermatitis in these cases. It is probably not a burn; if it is, it is not caused by the X-ray itself, which has no calorific property. It is probably not due to the action of particles of platinum from the electrodes, for delicate chemical analysis of the injured tissues has failed to show a trace of platinum. It is proven that the injury is not caused by ultra violet light rays. It has been suggested that the cathode ray may be the mischief. maker. As I said before, I think the chief factor lies in the kind of current used.

My points may be summed up in these words: With a proper current-generating apparatus, a tube of good efficiency, and the rays applied in a proper manner, there is no danger of a burn, or whatever these injuries are.

I hope that what I have said in this elementary talk may be of use to you in overcoming this mistaken fear.—*Western Medical and Surgical Gazette.*

THE POSSIBILITIES OF ANTITOXIN IN DIPHTHERIA.

BY GEORGE SUTTIE, M. D., PH. C.,

Harper Hospital Polyclinic Staff; Lecturer On Organic Chemistry, Detroit College of Medicine.

There is no difference of opinion now among medical men regarding the efficiency of diphtheria antitoxin. Statistics have abundantly proved the decreased death-rate resulting from its use, although there may be found an occasional doubter who refuses to believe any kind of evidence regarding this new remedy.

I have no intention in the following to do more than ascertain from the statistics at my command what is the percentage of deaths that has been observed in diphtheria under the use of antitoxin—being prompted to do so by a statement made by one of the speakers at the Sanitary Convention held lately in the city of Detroit. It was then said that the use of antitoxin had established an expectancy of from 13-14 per cent. as a death-rate, instead of the old-time rate of 30 per cent. and over without its use.

It is hardly necessary to make the statement here, but it is unhesitatingly reiterated that antitoxin has decreased the mortality of the disease under consideration. But was the death-rate mentioned a fair average? Does it represent the best obtainable from antitoxin? The writer thinks not. The percentage given was ascertained to be the death-rate observed in the entire city of Detroit during the period of the first few months' trial and where the greater number of cases occurred among the careless, unhygienic poor, antitoxin being furnished in these cases gratuitously by the city.

To those familiar with the squalor of the poor in a large city it is not necessary to say that any medicament for any disease whatever does not receive its most favorable test under the conditions which obtain among this class of our population. It is certainly much in its favor that it was observed to be of service at all in the midst of so generally forbidding environment. Antitoxin must be used early in the diphtheritic attack, at least before the fourth day, to get the best results—so accurate hospital observations have taught us—and this fact physicians themselves did not realize at first.

The class of people, however, of whom we speak are proverbially the slowest to call a physician, even if it be the city physician, whose service is without cost to them, and it frequently happens that their call for help is too late for antitoxin to save the cardiac centers from involvement in the general toxemia. What percentage of deaths, then, may be expected from the use of antitoxin in diphtheria under hygienic conditions, and with the antitoxin administered so soon as diagnosis is made?

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Having had something to do with the introduction of antitoxin for the use of the Contagious Department of Harper Hospital of this city, and having watched its administration from the beginning, the writer believes that a very much better percentage of result is attained with the early use of antitoxin in situations where hygienic conditions prevail, such as are found in a well-conducted hospital or even in the average private practice.

Antitoxin was first used in Harper Hospital in the fall and winter of 1894, in a sporadic, tentative, way. Forty-four cases of diphtheria were treated with the Aronson and Behring's serum, with four deaths (exclusive of three moribund on admission) and a death-rate accordingly of 9.1 per cent., when it happened that the supply of these became exhausted. At this juncture Parke, Davis & Co.'s diphtheria antitoxin was employed and found to be fully equal to any of the serums which had been previously employed; indeed, this is putting it too mildly, for not only did fewer disagreeable sequelæ follow its hypodermic administration, but cases progressed manifestly better under it. Thus in the remaining period of 1895 there were twenty-five cases, all of whom were treated with this serum (with exclusion of one moribund on admission). There was one death among these, the death-rate accordingly being 4.1 per cent.* Four were tracheotomy cases with four recoveries.

In 1896 there were 112 patients admitted to the diphtheria ward of the Contagious Hospital, twelve being subjected to intubation, six to tracheotomy, with only five deaths, "three of these being moribund cases when brought to the hospital, dying within a few hours of their arrival."† There was, therefore, a mortality of 1.8 per cent. These cases also received the Parke, Davis & Co.'s serum.

For the present year, 1897, up to December, there have been treated ninety cases of diphtheria in the hospital, with six deaths. One case was certainly moribund on admission, another may be called doubtfully so, but without excluding the latter, the death-rate was 5.6 per cent. The antitoxin used was the same.

The notable diminution in the death-rate as above given led the Detroit Board of Health to decide to furnish diphtheria antitoxin gratuitously to patients too poor to pay for it, this also including patients under charge of the city physicians, poor patients at Harper Hospital sent there by the Board of Health, at the Woman's Hospital and at the Protestant Orphan Asylum. This was done from May 1, 1896, and the number of patients so treated up to February 28, 1897, close of the official year,‡ was as follows:

Vide Therapeutic Gazette, February 1896 detailing these cases.
†*Harper Hospital Bulletin*, February, 1897.
‡Report of Board of Health, Detroit Mich., for twelve months, ending February 28, 1897, p. 8.

	Cases.	Deaths.	Mortality Rate.
With Antitoxin	374	47	12.58 per cent.
Without Antitoxin	467	163	34.90 per cent.

In continuation of this series of observations are the following results from figures not yet made public, but kindly furnished me by the Board of Health. From March 1, 1897, up to December, the following cases came either under the notice or care of the Board:

	Cases.	Deaths.	Mortality Rate.
With Antitoxin	305	32	10 49 per cent.
Without Antitoxin	632	192	30.39 per cent.

The antitoxin employed by the Detroit Board of Health has been from the first that of Parke, Davis & Co.

These figures go to show that as experience in its use accumulates and as both medical men and the public at large see the advantage arising from the use of antitoxin early in the diphtheritic invasion, there is attained a continued and steady improvement in results.

With patients in comfortable circumstances, assured of careful nursing, conscientious isolation, and the administration of a reliable antitoxin, there is very much to encourage the profession to expect a very close approach to the Harper Hospital figures—that is to say, a percentage of death not to exceed six or seven. This would certainly lift diphtheria out of the bad repute it has had hitherto of being one of our most fatal diseases.—Louisville Medical Monthly.

RULES FOR ORTHOPEDIC PRACTICE.

1. Discard the idea of rheumatism of a single joint in children (especially in the hip) unless it is positively proved by acute symptoms. Tuberculous disease is much more probable, and treatment for the graver condition will frequently abort threatened joint-destruction.

2. Any child may have local tuberculosis of a joint, no matter what its ancestry; heredity signifies only degree of resistance.

3. Do not attribute to "habit," a persistent limb. An inflammatory or paralytic cause is more probable.

4. All persistently fretful infants (especially those that cry when moved) should be carefully examined for evidences of spinal spondylitis. Older children, with stubborn irritation of the lung, stomach or intestine, should always be critically examined. Early diagnosis and treatment will accomplish excellent results.

5. In lateral curvature of the spine the indiscriminate and unskillful use of mechanical appliances does harm, while to neglect these means of fixation in spinal caries is ruinous.

6. To "let alone" a curable congenital bone-deformity after the first week of life is to lose the golden opportunity for cure.

GONORRHŒA AND ITS TREATMENT.

BY WINSLOW ANDERSON, A. M., M. D., M. R. C. P. LOND., M. R. C. S. ENG., ETC.

Professor of Gynæcology and Abdominal Surgery, College of Physicians and Surgeons of San Francisco, California.

The prevalence of gonorrhœa and its frightful ravages are brought to the notice of the gynæcologist almost daily. The gonococcus infects not only the vulva, urethra, bladder, rectum, vagina and uterus but also the Fallopian tubes, ovaries and pelvic peritoneum, and may lie dormant in many of the tissues, notably the vulvo-vaginal, Skene's urethral, cervical and utricular glands, for years, ready to infect or reinfect any healthy mucous membrane. Undoubtedly the prime cause of *sterility* in both man and woman is the gonococcus. One of the great causes of dysmenorrhœa is the gonococcus and the prime ætiological factor of pyosalpinx, pelvic cellulitis, co-ophoritis, and the subsequent salpingo oophorectomy, to say nothing of the cystitis, pyonephritis, can be traced to the gonococcus with its boon companions, the streptococcus and the staphylococcus.

Primary Sterility and Gonorrhœa.—Vedeler in the *Centrabl. f. Gynak.*, No. 26, 1897, who investigated 310 sterile women, according to the *British Medical Journal*, found that undoubtedly gonorrhœa is the most frequent cause of sterility. The average years of marriage in the series were three, the minimum one complete, whilst seventy-two of the women had been married over ten years. Vedeler succeeded in examining fifty of the husbands, and found that thirty-eight had had gonorrhœa and that thirty-four had infected their wives. He calculates that at this rate 235 of the 310 husbands probably had had that disease, and that about 210 must have infected their wives.

Dr. Madden (*London Lancet*) recorded by Dr. Chase in the *Brooklyn Medical Journal* for October, 1896, after speaking of the invasions of gonococci into the uterus, Fallopian tubes, etc., says: "With reference to the other intra-pelvic complaints of which gonorrhœa is a fertile source, I shall only here observe that long clinical experience has convinced me that in a large proportion of instances, peri-uterine phlegmon, or in other words, all these chronic inflammatory lesions of the pelvic serous and connective tissues formerly included in the term pelvic cellulitis, and subsequently better known as perimetritis and parametritis, may be found traceable to that affection."

Endometritis and Pelvic Inflammation due to Gonococci.—Gottchalk and Immewar in *Archiv. fur Gynakol*, bd. i. h. 3, report finding gonococci in several cases of endometritis. Acute infection of the pelvic organs is almost as common from gonorrhœa as from puerperal and other septicæmic causes.—Walter

B. Chase, M. D. (*Brooklyn Medical Journal*, October, 1896). Pelvic inflammations from gonorrhœa are probably of more frequent occurrence than acute orchitis in the male.—Sir Spencer Wells. Dr. F. G Moehlan, of Buffalo (*St. Louis Medical Era*) attributes pelvic diseases in women to the gonococcus in *ninety per cent of all cases*. Prof. Marcus Rosenwasser in the *Cleveland Journal of Medicine* says: "Not less than twelve per cent of all the women who consult the specialist, exclusive of prostitutes, have gonorrhœa or its sequelæ. It is the cause of not less than fifteen per cent. of all the cases of puerperal fever. It is responsible for seventy per cent. of all cases of *sterility in woman*."

Duration of Acute Gonorrhoea.—Dr. Christian, of Philadelphia, writes positively on the duration of acute gonorrhœa under treatment, in the *Therap. Gazette* of January '97, as follows: "For my part I believe, with Taylor, that gonorrhœa may be, and very often is, one of the most formidable diseases that can attack man." What, then, is the duration of acute uncomplicated gonorrhœa? Finger states that cases of acute urethritis with no unusual symptoms last from five to six weeks. In the opinion of R. W. Taylor, a man should consider himself very lucky to be cured of gonorrhœa in from six to eight weeks. Keyes places the average duration at from four to six weeks. Brewer says: "Experience in the treatment of urethral disease has taught me that the simple cessation of discharge by no means indicates a cure of the disease." Dr. J. William White gives the duration of acute urethritis at from four to six weeks. Dr. Martin thinks a case fortunate that is cured in eight weeks. The gonococcus thrives better in an acid than in an alkaline medium, hence passing urine after a questionable exposure would aid the multiplication of the germs. The normal urethra is alkaline or neutral, but never acid (Jadassohn), even after passing acid urine, as the canal secretes an alkaline mucus.

Gonorrhœa and Prostatism.—Eraud calls attention to the fact that failure of treatment, in some cases of enlarged prostate in elderly men, may depend not infrequently on gonorrhœal infections, either ancient or recent.—Jour. Cut. and Gen. Urin. Dis.

How to Find the Gonococcus.—Prof. J. A. Wyeth of New York, writes in the December *Polyclinic:* "Place a small drop of the discharge upon a cover-glass and smear by rubbing two cover-glasses together; dry it by passing one of the cover-glasses with pus side upward through a spirit-flame two or three times; immerse this at once in a solution of methyl-blue; wash off the excess of coloring matter by holding it under clean running water, or by dipping the glass several times into clean water; dry the stained pus well by pressing with blotting paper; then cover it with a small drop of cedar oil; put on a thin cover-glass and examine with a lens magnifying from 700 to

1,000 diameters. The peculiar double beam-shaped arrangement of the diplococci will be seen within the protoplasm of the pus corpuscle and epithelium."

Prevention of Gonorrhœa.—Von Neisser (*Centralbl. f. d. Krankh. d. Hard. und Sex. Org.*, bd. vii, h. 1, 1896; quoted from *Berl. Klin Woch.*, 36, 1895) has theoretically confirmed the method of preventing gonorrhœa advocated by Blokusewski-Daum. This method consists in dropping into the meatus, the lips of which are held open, two drops of a ten per cent. solution of nitrate of silver. One drop is allowed to run over the frenum. Fifty patients adopted this treatment without experiencing the least irritation. Five seconds' application of this solution always inhibited the growth of the gonococcus when cultivated in artificial media. Weaker preparations are unreliable.—*Therap. Gazette*, July, 1896.

Gonorrhœa of the Rectum.—According to Baer (*Am. Jour. Surg. and Gyn.*) gonorrhœa may and often does invade the rectum in women, from (1) abnormal sexual intercourse, (2) indirectly from the communication with the rectum of an organ attacked with gonorrhœa. By the conveyance of the germs from without by pus, or by therapeutic measures (thermometry, irrigation, etc.). When developed, some patients who have ulceration complain of marked pain on defecation; others discharge both pus and blood via ano. There is usually a slight discharge, which always contains typical gonococci. The treatment consists in injection of a 3 per cent. solution of boric acid, and to diminish the secretion and destroy the gonococci a solution of nitrate of silver 1–3000, employing a quart of each solution. The treatment should be continued until no germs can be detected in the discharge, usually for from five to six weeks.

Toxicosis of Gonorrhœa.—Gonorrhœal ptomainæmia, or the absorption of the alkaloidal poison produced by the gonococcus, is no doubt responsible for our so-called gonorrhœal rheumatism and some of our cases of septic endocarditis. The Brit. Med. Jour., under the heading of Gonococcosis, states that Dr. De'Aulnay, in a reprint from Rev. Internat. de Med. et de Chir., December 10th and 25th, 1896, publishes an exhaustive pamphlet on the diseases produced by the gonococcus. He distinguishes the local and general effects of the micro-organism under the names of ganococcitis and gonococcis, appyiling that of gonococcosis to the whole subject. He points out that the local effects are produced by the growth of the diplococcus mainly upon the mucous membranes, where it brews a toxin which can be absorbed by the circulatory stream. The micro-organism rapidly invades the tissues, particularly the most friable, the cylindrical and serous epithelia, and spreads to the adjoining mucous membranes either by direct cellular infection or by means of the superficial lymphatics. The author divides the general effect of the virus into

two categories. First comes the action of the toxins, which is mainly expended upon the blood, the kidneys, the nervous system, the skin, and the serous membranes, especially of the joints. Secondly, there is the action of the micro-organisms themselves, which are conveyed in the blood vessels and lymphatics, either separately, enveloped in leucocytes, or entangled in emboli, which manifest their power of rapid growth when in contact with serum. They tend to the production of pus, which is sterile if the gonococcus is alone, infectious if accompanied by other organisms. In the worst cases, without obvious cause, gonorrhœal pyæmia may develop.

Treatment of Gonorrhœa.—Gonorrhœa is essentially a local disease of the mucous membranes depending upon specific pathogenic infection. When this germ is attacked early by appropriate remedies the disease can be aborted. When allowed to "run its course" as a "self-limited disease," we must not be surprised to find septic or alkaloidal systemic poisoning, nor any of the many serious pelvic sequelæ. In many cases of chronic gonorrhœa that have been treated for months and apparently cured, I have found that Skene's glands, Bartholin's glands, the cervical and utricular glands contained the gonococcus snugly hidden away, ready on the slightest provocation to infect, or reinfect, any mucous membrane.

When we remember the pathological process induced by the gonococcus it is clear that our first object should be to destroy the pathogenic germ. For this purpose any of the following germicides may be used:

Permanganate of potassium	1–10,000 to 1–500
Formalin	1–1,000 to 1–500
Chinosol	1–10,000 to 1–1,000
Bichloride of mercury	1–10,000 to 1–500
Peroxide of hydrogen	1–4 or 1–2
Argentamin	1–10,000 to 1–500
Thymol	1–1,000 to 1–100
Oxycyanatum	1–1,000 to 1–500
Nitrate of silver	1–100 to 1–10
Carbolic acid	1–100 to 1–20
Lysol	1–100 to 1–20
Argonin	1–50 to 1–10
Creolin	1–100 to 1–50
Resorcin	1–100 to 1–50
Creosote	1–100 to 1–50
Zinc chloride	1–50 to 1–10
Saturated sol. salicylic acid in alcohol	1–10
Acetate of lead	1–100 to 1–50
Sulphate of zinc	1–100 to 1–10
Iodoform—powder or ointment	
Chloral	1–50 to 1–10
Ichthyol	1–50 to 1–10
Actol	1–1,000 to 1–100
Itrol	1–1,000 to 1–100
Cresol	1–1,000 to 1–100
Chlorine water	1–100 to 1–50
Turpentine	1–100 to 1–20
Labarraque's solution	1–50 to 1–10

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Iodine.....1–100 to 1–50
Alum.....1–50 to 1–10
Boric acid.....1–50 to 1–10

Neisser, the discoverer of the gonococcus, who has made a special study of the disease, stated at a recent discussion in the Gyn. sect. of the Sixty-eighth Congress of Ger. Natur. and Phys., held at Frank. am Main (Archiv. f. Der. und Syph.), and quoted in the Therap. Gazette of January, 1897, that the medicaments of choice are the salts of silver, such as: Argentamin, nitrate, actol, itrol, bichloride of mercury, oxycyanatum and ichthyol. The remedy must be brought in contact with every portion of the infected mucous membrane and should be used as early as possible. Saenger (Ibid) states that the exact period during which gonococci may persist is not known. He describes vulvitis, adenitis, urethritis, endometritis, metroendometritis, salpingitis and nearly all the inflammatory diseases of the vagino-uterine tract as due to residual gonorrhœa. Baumm (Ibid) claims that infection from an old case when planted on healthy mucous membrane produces an acute attack. He states that gonococci may remain virulent in the genital tract from five to ten years.

Abortive Treatment of Gonorrhœa: Permanganate of Potassium.—In the Ann. d. Mal. d. Org. Gen.-noin, 1896, Dr. J. Janet, as reviewed by Dr. Swinburne in the Jl. of Cut. and Gen.-Urin. Dis. for February, 1897, says, in giving his reasons for using the permanganate of potassium treatment, that in "'every case' in which he has used the treatment before the acute symptoms have manifested themselves, among which swelling of the urethral mucous membrane is the most important, he has been able to attain absolute suppression of the gonorrhœal process, and from the beginning of the treatment up to the time of complete cure not one of the patients showed any increase of invasion." Dr. Vigueron of Marseilles has employed Janet's permanganate treatment for five years with excellent success, curing patients that came under treatment within the first thirty-six hours in from six to ten days. Dr. Guiard of Paris has found Janet's method superior. He uses the permanganate fluid in milder solutions, varying in strength from 1–10,000 to 1–6,000. He reports curing cases with six to twelve irrigations. Dr. Nouges of Paris uses the Janet method for all acute cases (before the fourth day after infection). He uses permanganate lavage in 1–4,000 up to 1–500, the latter for the anterior urethra only. The irrigation is used at first every twelve, eighteen and finally every twenty-four hours. Dr. Nogues has also found nitrate of silver 1–2,000 and oxycynate of mercury efficacious in cases in which the permanganate failed. Dr. Evand of Lyons uses, besides the permanganate, bichloride of mercury, methyl blue, or gentian violet in weak solutions. Dr. Desnos of Paris employs permanganate as follows: He begins with a 1 in 500 solution

for the anterior urethra. In twelve hours he uses a 1 in 1,000 solution. On the third, fourth and fifth days he uses a 1 in 5,000. Thus employed within the first thirty-six hours after infection he has cured seventeen out of eighteen cases; the gonococci disappearing after first, second or third lavage. Dr. Janet believes in using weak solutions of the permanganate, 1–10,000 to 1–5,000. He employs irrigation of the entire canal. In five years he had not observed a single case of stricture among the cases treated by this method. Dr. Christian of Philadelphia obtained the best results by daily irrigation combined with the internal administration of sandalwood oil and balsam of copaiba. He uses: astringent injections of zinc ascetate or lead acetate, gr. iii to ʒi or copper sulphate of zinc chloride, gr. one-half to ʒi. His favorite is permanganate of potassium, 1–4,000 to 1–5,000.

Methyl Salicylate in the Treatment of Gonorrhœa.—By reason of the great power possessed by methyl salicylate of penetrating investing membranes, M. Duquaire (cited in the Jl. des Pract.), has conceived the idea that it will reach the gonococci even when they are seated in the deepest layers of the mucous membrane. He reports a case in which its employment cured the disease in five days. He uses the following solution: Methyl salicylate, 1 part; bismuth subnitrate, 20 parts; liquid vaseline, 100 parts. Three injections are to be given daily. The patient should urinate, then take the injection and hold it in the urethra as long as possible. The injections are not painful—N. Y. Med. Journal; Cin. Lancet Clinic.

The Use of Formalin in Gonorrhœa in Women.—In the Jour. de Med. de Paris of August 16, 1896, De Smet calls attention to the treatment of gonorrhœa in women by means of formalin. The vulva is washed with a 1–1,000 solution of formalin, and before introducing the speculum the vagina is washed out with a two or three per cent. solution. It may also be well to swab out the cervical canal of the uterus by the use of a 2-1,000 solution. Where the case is grave and there exists a gonorrhœal metritis, surgical intervention, such as curettage, is needed; but even in these cases the formalin applications are of advantage. De Smet believes that formalin offers the most rapid available means of cure of gonorrhœa in the female.—Therap. Gazette.

Argonin in Gonorrhœa.—Dr. Daniel, of Texas, reports in the Am. Therapist for Jan., 1897, the treatment of twenty-six cases of acute gonorrhœa. "Argonin is a combination of silver with the casein of milk." From 3 to 10 per cent. of the argonin in water was used per injection. The gonococci disappeared in from the second to the seventh day, and a complete cure of the disease was effected in from twelve to eighteen days.

Treatment of Urethritis by Ichthyol and Blue Ointment.—A. T. Ilinsky. (Wratch. Nos. 1, 2, 6, 1896.) With this treat-

ment fourteen acute and fifty-eight chronic cases were treated with good results. He uses a 1 or 2 per cent. solution of ichthyol as an injection twice daily. In chronic cases the following was of great service:

Ung. ciner.....℥ss
Adipis lanæ.
Ung. paraffini.....aa, ℥ii

A soft bougie (No 10–15) covered with this ointment is introduced every second day and left in place for twenty-five to thirty minutes. Ichthyol suppositories, eight centimeters in length (one grain in each), produce a striking effect. Visible improvement is seen in cases of prostatitis and other local urethral inflammations from the use of bougies of gray ointment.—Jour. Cut. and Gen. Urin. Dis.

Vaginal Douching.—Dr. Newman of Chicago, quotes Dr. Ellis of Edinburgh (Lon. Lan., May, 1897), in Medicine, July, 1897, on the choice of a solution. The douching fluid is divided into three kinds: 1, neutral or aseptic; 2, mild antiseptic; 3, powerful antiseptic. The first comprises boiled water, alum, ℥i to the pint; acetate of lead, ℥i to the pint; chloride of lead ℥i to the pint; permang. of potassium, weak solution, 1–5,000 to 1–10,000. 2. Mild antiseptic: Boric acid, ℥ii to Oi; sulphocarbolate of zinc, ℥ii to Oi; ac. carbol, 1–80 to 1–40; Condy's fluid, ℥ii to Oi; cresol, 1–250; lysol, 1–250; bichloride, 1–5,000; chinosol, 1–8,000. 3. Powerful antiseptics: Ac. carbol, 1–40 to 1–20; iodine liniment, ℥i–℥i to Oi; bichloride, 1–1,000 to 1–4,00; chinosol, 1–1,000 to 1–8,000.

Creosote used in Gonorrhœa.—According to the Brit. Med. Jour. for July, 1896, Asmus Meditzinskoie Obozrenie reports 58 male cases of acute gonorrhœa treated by 1–1,000 to 1–100 emulsion of creosote injections. The patients recovered more rapidly than by any other form of treatment and complications were rare.

Sodium Copaibate.—Martin (Phila. Polyc.) has been treating a number of cases of acute and chronic gonorrhœa by the administration of sodium copaibate. Five, ten, fifteen and twenty grains are given four to six times a day, and so encapsulated that they are not set free until they reach the intestinal tract.—Amer. Jour. Surg. & Gyn.

Sodium Salicylate and Balsam for Gonorrhœal Rheumatism.—Balzer (Ther. Gazette, Oct., 1896) recommends large doses (45 to 60 grains) of sodium salicylate with some balsam in the acute, and potassium iodide in the chronic form of gonorrhœal rheumatism. He immobilizes the limb, uses ice bags to painful spots and applies an ointment composed of:

Acidi salicylatis...
Olei terebinth.....aa ℥iiss.
Lanoline.....
Adipis.....aa q. s. ad. ℥iij.
M. et ft. ung.

Guaiacol ointment ℥i to ℥i is also employed. In chronic cases, counter-irritation, massage, electricity and turpentine baths are used. In effusion he uses compression. If purulent, he aspirates and injects ℥i--℥ij of a 1--4,000 bichloride solution. If inflammation is severe arthrectomy is recommended.

The Treatment of Gonorrhœa in Women.—The plan of treatment which I have found most satisfactory is as follows: When the case comes under observation within the first thirty-six hours after contagion I swab out the vagina thoroughly with a 1 in 500 solution of potassium permanganate. By dilating the vaginal canal thoroughly with a wire speculum the remedy reaches all the sulci between the rugæ. I next apply the same remedy to the cervical canal and to the urethral glands and insert a vaginal tampon against the cervix soaked in a solution of 1 in 5,000 of permanganate of potassium in boro-glycerine. The patient is then sent to bed and a liberal complement of blue mass given. The next morning ℥ii of a saturated solution of magnesium sulphate in aromatics is exhibited. Every six hours after the first application a douche is given of 1 in 1,000 permanganate of potassium in one gallon of sterilized water at a temperature of 110 deg. F., applying after each douche the permanganate and glycerine tampon. This treatment is continued for twenty-four hours, after which the douches are administered every eight to twelve hours, and the strength of the permanganate is reduced to 1 in 2,000 or 1 in 10,000, continuing the glycerine tampons with or without the permanganate, ichthyol, chinosol or any other antiseptic best suited. The diet must be bland and non-irritating, and large draughts of demulcents administered.

With these simple measures the extension of the disease into the uterus or urethra is prevented, the gonococci are destroyed and the case is generally cured in from five to ten days. When the disease is sub-acute or chronic, which it becomes in two to six weeks, these simple measures will not suffice. If the urethra and Skene's urethral glands are infected it is necessary to apply the antiseptic more frequently to these parts. For this purpose I often use peroxide of hydrogen, 1 to 4 of Marchand's medicinal strength. When the vulvo-vaginal glands are involved, as they are liable to be after the first week or two of the disease, I catheterize the ducts and inject them with permanganate or peroxide every day by means of a small canula. Should the cervical and utricular glands be infected, as they are apt to be in a week or two of untreated gonorrhœa, I know of no better treatmant than a thorough curettement, followed by

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the intra-uterine permanganate douche, 1-10,000, and the application of equal parts of iodine and carbolic acid. The cavity is then packed with sterilized gauze to assure free drainage. The packing is removed in twelve hours, and the intra-uterine douches continued for two or three days. The hot antiseptic vaginal douches of permanganate, 1 to 10,000 to 1 to 1,000, are used twice daily. The bowels are kept relaxed by salines. Meat, spices, wine, beer and spirits are forbidden. When the urethra and bladder become infected I frequently wash them out daily with a 1 in 10,000 permanganate solution or a boric acid solution. In the sub-acute and chronic stages sandalwood oil and the balsams, with the acetates and citrates of sodium or potassium, are serviceable. Anodynes, such as hyoscyamus, the bromides or chloral, may be required.

Our efforts should be first directed towards the killing of the coccus, as well as towards preventing the extension of the disease into the uterus and Fallopian tubes, which I believe can be accomplished by the methods I have described, if the case is seen within the first three days. When the disease has reached the uterine cavity we can not do better than treat it vigorously to prevent its entrance into the tubes, and the curette is followed by the best results in my hands. Even after the gonococcus has entered the tubes it cannot thrive there, and if there is no fresh infection from the uterus much damage may be prevented by the early use of the curette and intra-uterine medication, as the gonococcus can not live in the abdominal cavity. The staphylococcus and the streptococcus, however, which frequently accompany the gonococcus, seem to flourish both in the tubes and pelvic cavity, inducing the many serious sequelæ which the gynæcologist is so frequently called upon to treat.

My experience with chinosol has been highly satisfactory. Likewise the bichloride used thoroughly and systematically has proven itself efficient, although at times setting up considerable irritation, which the permanganate does not do to the same extent. Formalin is a valuable antiseptic. So are many of the other remedies. I consider it of importance to use antiseptic tampons of any of the established germicides in order to prevent the entrance of the coccus into the uterus, as well as to keep the walls of the vagina apart. I also use an antiseptic vulva pad, soaked either in the permanganate or bichloride solutions, to prevent the urethra, vulvo-vaginal glands and rectum from becoming invaded. In the acute cases the patient is kept in bed three days. In the chronic cases a thorough curettement and antiseptic treatment, with two weeks' rest in bed, have been most successful in my hands. Thorough systematic treatment (which is not readily submitted to by patients) is the sine qua non of an early cure or a possible prevention of the frightful ravages of this disease.—Pacific Medical Journal.

THE TREATMENT OF MAMMARY CANCER.

The prolonged discussion in one of the leading medical societies of England upon mammary cancer inevitably led to the conclusion that neither from the medical or surgical standpoint were we within a reasonable distance of acquiring a satisfactory method of dealing with this fell disease. A discussion, however, which defines the extent and limitations of knowledge is not entirely unavailing. The principal point raised by the discussion was whether the operative treatment of mammary cancer was really a treatment at all. If the statistics of the last ten years have any value, it seems doubtful if long immunity is in many cases due to operation. Any such term as the cure of cancer must generally be reprobated.

After surgical intervention, three years' freedom from recurrence has been accepted as a hopeful prognostic of immunity. Nothing, however, is surer than that such is not in any sense a guarantee of it. At best, the ordinary removal of the mamma leads to recoveries ranging from ten to eighteen per cent. Halstead's operation, which involves the removal of the glands of the axilla and the pectoral muscle, is averred to favor a recovery of forty per cent. This operation is, however, a formidable one, and it is scarcely proved that the ratio of improvement it secures offsets the increased mortality. It is also alleged with some show of reason that the greater operation favors a greater amount of visceral metastasis.

A rational therapeusis of cancer will undoubtedly never be achieved until clearer and more definite notions prevail as to its essential nature. There are some grounds for believing cancer to be at one time a local disease, and as such local measures might be expected to modify its course. Syphilis might as justly be regarded a local disease. Local measures, however, are incapable of counteracting its constitutional implantation. To remove a cancer may be as futile a proceeding as the removal of a chancre. If cancer be a local disease at any time, nothing is known of the period at which it becomes constitutional, and nothing of the process whereby it infects distant parts.

So indifferent is the success achieved by surgical intervention that it can only be regarded a failure even though it prove the most promising resort open to the desperate. It is encouraging to find activity manifested in other directions. From the therapeutical laboratory something is still to be expected. Promising indications have resulted from the formation of an experimental cirrhosis by means of dilute alcohol injections at the circumference of the tumor. Twenty-five cases of cure have already been reported. Formaldehyde also seems to exercise an extraordinary influence in these cases. The gleams of hope which occasionally irradiate this gloomiest domain of medicine should give encouragement to experimental activity in manifold directions.—*Medical Age.*

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SEMINAL VESICULITIS AND PROSTATITIS.

Dr. Geo. K. Swinburne (*Jour. Cut. and Gen.-Urin. Dis.*, 1898, CLXXXVI, 119), says that physicians have not recognized the importance of vesiculitis and prostatitis occurring in cases of chronic gonorrhea, and he believes that these conditions will be found in fully thirty-five per cent. of such cases. He then outlines the history and treatment of three cases which had come under his care, and gives the following conclusions:

1. We find a condition of the prostate and seminal vesicles in patients who have never had gonorrhea, which seems to be of a catarrhal nature, which may or may not give rise to symptoms. These symptoms, at present, are apt to be neurasthenic in character; they are benefited by local massage.

2. In chronic urethritis and at the end of prolonged urethritis, or where the posterior urethra has become invaded, the seminal vesicle and prostate should always be examined.

3. Where epididymitis has occurred, seminal vesiculitis is very apt to exist also. This, however, may clear up spontaneously.

4. Tubercular processes should, if possible, be excluded, for massage is apt to render their condition worse.

5. Where live spermatozoa are found by stripping after the urine has stood for some time, it is a good thing that the mucous membrane of the seminal vesicles secretes the proper fluid for preserving the life of the spermatozoa.

6. Stripping the seminal vesicles is a good method to try as a test for sterility, as a test to see whether the ducts between the testis and the seminal vesicle of corresponding side are patent. It may, however, fail.

7. It is necessary to train the finger in making examination for this condition, as in making a vaginal examination.

8. Sometimes at the beginning of treatment nothing or but little material will be expressed. If the treatment is continued, more and more material will be expressed.—*A. M. S. Bulletin.*

LABOR IN MATURE PRIMIPARÆ.

DeKoninck (*Revue Med.; Brit. Med. Jour.*) has compiled an instructive memoir on labor in primiparæ married for some years and relatively mature (twenty-eight years Bidd and Pourtad, thirty-two Ahlfeld). DeKoninck gives thirty as the earliest year coming under "maturity," the "primipares agees" of the French authorities. He sets aside as curiosities certain cases of primiparæ almost "aged" in the English sense of the term, such as Cohnstein's two women aged fifty, and Steinmann's woman aged fifty-two. It appears that in a genuine uncomplicated case of delayed impregnation the advent of the catamenia is always found to have occurred late in youth.

Out of four hundred and one such cases menstruation was retarded till twenty in thirty-nine, till twenty-four in four, and till twenty-six in one. As to the retarded first pregnancy, abortion, ectopic gestation, twins and special renal mischief are relatively frequent. Above all, lingering labor is specially common, statistics even exceeding guesses and *a priori* reasoning in this respect. In thirteen out of seventeen noted by De-Koninck labor lasted from forty to fifty hours, the remaining labors being yet longer; one exceeded ninety hours.

Feebleness of uterine contraction is absolutely from first to last, and independent of any obstetrical combination. They also cause far more physical and mental exhaustion than the vigorous contractions of a young uterus, and at the same time are more painful. There are other discrepancies in the "pains" seen in mature primiparæ of the same age, probably homologous with the great variations in the age of the menopause observed in otherwise normal women. The uterus may be older in one woman aged thirty-five than in another of the same age.

The forceps and other obstetrical operations are often required in the mature. Most of the above facts are easily explained. The excess of male infants borne by mature primiparæ (thirty per cent.) is a less explicable phenomena. Hetker considers the predominance of male infants as a specialty of all primiparæ, but Rumpe turns attention to the fact that in a family of children the predominance of males is commoner the further the mother is from her first menstrual period.

GENERALIZATIONS FROM SIX YEARS OF TUBERCULIN.

BY JAMES T. WHITTAKER, M. D. (*Brit. Med. Jour.*, Oct., 1897 p. 1053).

The use of tuberculin should be studied from the double standpoints of diagnosis and treatment. The value of it in the disclosure of tuberculosis in man was not at once rightly recognized, on account of alleged dangers in the use of it; but in cattle it soon met its proper appreciation, and is, perhaps, nowhere more extensively and satisfactorily used than in the United States. Aside from the objections urged by ignorant and prejudiced people not worthy of notice, four apparently valid arguments accumulated in the course of time against the use of tuberculin in man:

1. That the reaction occurred in the absence of tuberculosis. This has been met by the demonstration of concealed depots.

2. That the reaction occurs in other diseases—syphilis, lepra, actinomycosis, etc. This objection has been met by the demonstration of tuberculosis coincident with or complicating these maladies.

3. That the reaction will occur in the most quiescent case, even where the bacilli are not only concealed, but encapsulated,

and depots are partly calcified. This is, of course, no objection at all, but a most striking conformation.

4. That the use of it is dangerous in that it not only awakens the disease from latent sources, but disseminates it over the body, and thus leads to auto-infection and increases the danger of infection of others. This conclusion rests upon a false premise, and confounds the post with the propter hoc.

The best results were attained in office practice; in the first place in the way of diagnosis. Disease treated hitherto without a diagnosis, or for something else, may be cleared up by this method. Thus an obstinate or frequently recurring dyspepsia, an amenorrhœa, a neurasthenia, an anæmia, a rheumatism, an adenitis, a little low fever (to say nothing of acute cases of chills, night sweats, catarrh, and coughs) may have their true nature revealed in this way. These are the cases reported (aside from chills and fever) in which the treatment furnishes the best results. Tuberculin gives good results in childhood; they react more favorably to tuberculin than adults, so that the so-called apex catarrh of childhood will often clear up within three weeks.

For diagnostic purpose the first dose in cases of suspected light infection should be 5 mg., the second 10 mg. or 1 cg., the third 2 cg. These doses may be given on succeeding days, or, better, every other day, preferably in the evening, that the temperature records may be properly observed on the following day. Failure to get reaction from three tests exclude concealed tuberculosis. The crude tuberculin diluted one hundred times, preferably with one-half per cent. solution of carbolic acid, makes, of course, a one per cent. solution, of which one interspace of the Koch syringe represents 1 cg. One interspace of this one per cent. solution diluted ten times makes 1 mg. For therapeutic use begin with one-tenth of a milligramme.

The highest value of tuberculin is the diagnostic value, which is supreme, and which enables us to distinguish the disease from the start as a tuberculosis, before the development of sepsis or other complications which go to make up phthisis.—*New York Postgraduate.*

INTERNATIONAL LEPROSY CONFERENCE, BERLIN, 1897.

GENERAL CONCLUSIONS.

At the close of the debates of the International Leprosy Conference, Berlin, 1897, the secretaries have the honor to present the following short report of the general conclusions of the conference:

They believe that such a resume will be especially desirable for those members who have been delegated by their respective governments, and who have to make reports on the results of the conference.

As might be expected, a considerable portion of the dis-

cussion has related to the bacillus lepræ, which the conference accepts as the virus of leprosy, and which for upwards of twenty-five years has been known to the scientific world through the important discovery of Hansen and the able investigations of Neisser.

The conditions under which the bacillus grows and develops are still unknown, as well as the way of its invasion into the human system; but from the discussions of the conference, it seems probable that an unanimity of opinion will soon prevail in reference to its modes of subsequent dissemination within the human body.

Very interesting observations have been brought forward in connection with the elimination of the bacilli in large quantities by means of the skin and the nasal and buccal mucous membranes of lepers; it is desired that such observations be confirmed where opportunities occur.

The question is of very great importance to those who are entrusted with the care of the public health, as leprosy is now acknowledged to be a contagious disease.

Every leper is a danger to his surroundings, the danger varying with the nature and extent of his relations therewith, and also with the sanitary conditions under which he lives.

Although among the lower classes, every leper is especially dangerous to his family and fellow-workers, cases of leprosy frequently appear in the higher social circles.

The theory of heredity of leprosy is now further shown to have lost ground, in comparison with the at present generally accepted theory of its contagiousness.

The treatment of leprosy has only had palliative results up to the present time.

Serum therapy has so far been unsuccessful.

In view of the virtual incurability of leprosy and the serious and detrimental effects which its existence in a community causes, and considering the good results which have followed the adoption of legal measures of isolation in Norway, the leprosy conference, as a logical issue of the theory that the disease is contagious, has adopted the following resolution proposed by Dr. Hansen and amended by Dr. Besnier.

1. In such countries, where leprosy forms foci or has a great extension, we have in isolation the best means of preventing the spread of the disease.

2. The system of obligatory notification, of observation and isolation as carried out in Norway, is recommended to all nations with local self-government and a sufficient number of physicians and health officers.

3. It should be left to the legal authorities after consultation with the medical authorities, to take such measures as are applicable to the special social conditions of the districts.

Secretaries of the conference:

Phin. S. Abraham, London; E. Dubois Havenith, Bruxelles; Ed. Arning, Hamburg; J. J. Kinyoun, Washington; A. von Bergmann, Riga; G. Thibierge, Paris; Edv. Ehlers, Copenhagen, General Secretary.

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MALARIA HOLLOW, April 1st, 1898.

DEAR DOKTOR: i am mighty obliged to you fer the loan uv thet stone fer it wus luky thet i hed it fer wen i operated on old man Kalkuli i found he dident hev no stones thet is he hed none in his blader. say doc i hed an operation this mornin thet is to say i operated on young Mrs. Eggly she had a pain in hur overy an i bin trin to git hur to let me kut thet overy out. wal it hurted hur so much thet at last she sed go a hed and kut it out. wal you see it bein the furst time i kut overies out uv a woman i got kinder mixed and after she wus under kloroform i furgot which overy it wus thet hurted hur but i went a hed an kut both uv them out fur i knowed she wud never no the diffurence an if she komplaned uv both sides hurtin after the operation i kud tell hur the other side hurt from simpithy. say doc kuttin overies out is ded easey. the trouble is tu git the pachunt over the afekts uv the operachun. say doc im writin an artikle on intubation uv the rektum fur kronic flatulency to be published in the beanville medical Bazoo. Dr. Cuttinskope es bin sick he wus pasin gaul stones. i told every bodie he hed hog kolera an yu ken bet he wus mad. wal i dont think Cuttinskope will stay hear long any more kos the folks round hear dont count much on his durn spiglass biznis. they want a doctor what knows what to do with out runnin home to look through a mikroskope just like ole man Hayrick sed he dident give a durn fur siense what he wanted wus relief. whats the gud uv makin them durn bugs so big you ken see em with a spiglass you kant hit em with an ax and kill em any way. i guess ile jes keep on killin them bugs with pisen with out seain them. wal doc so long until i rite a gain. Your esteemin friend, Dr. M. T. Head, M. D.

Society Reports.

FORTY-NINTH ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA.

WEDNESDAY, April 28, 1898.

1. Treatment of Typhoid Fever.—Wm. J. Cox, M. D., Barnesville.
2. A Report of Surgical Cases.—Hunter P. Cooper, M. D., Atlanta.
3. Malarial Asthenopia.—J. Lawton Heirs, M. D., Savannah.
4. Diphtheria Antitoxin with Report of Cases.—Henry R. Slack, M. D., LaGrange.
5. Solid Tumors of the Ovary.—Virgil O. Hardon, M. D., Atlanta.
6. Puerperal Eclampsia and Some Probable Causes of it.—J. I. Griffeth, M. D., Danielsville.
7. Hysteria.—A. A. Davidson, M. D., Augusta.
8. Femoral Hernia with Report of Cases.—Floyd W. McRae, M. D., Atlanta.
9. Primary Sarcoma of the Orbit, with Cases.—Alex. W. Stirling, M. D., Atlanta.
10. Mushrooms, a Food and a Poison.—W. H. Elliott, M. D., Savannah.
11. The Indication for, and Antiseptic Technique of Uterine Drainage, after Labor and Abortion.—R. R. Kime, M. D., Atlanta.
12. A Rare Form of Bone Atrophy following an Ununited Fracture, as seen by the X-ray.—Eugene R. Corson, M. D., Savannah.
13. Surgical Treatment of Hemorrhoids.—Wm. S. Goldsmith, M. D., Atlanta.
14. A Few Cases from my Note-Book.—J. G. Hopkins, M. D., Thomasville.
15. The Possibilities of a Perfect Aseptic Surgical Technique.—E. C. Davis, M. D., Atlanta.
16. Diphtheria; its Present Status and Treatment.—B. C. Powell, M. D., Villa Rica.
17. Locomotor Ataxia.—Hugh Hagan, M. D., Atlanta.
18. Shall Georgia Have a Medical Law Pertaining to Marriage Contracts?—J. Cheston King, M. D., Newnan.
19. Tonsilotomy, When and How to Make it.—J. M. Crawford, M. D., Atlanta.
20. A Georgia Incubator.—W. P. Williams, M. D., Blackshear.

21. Some Remarks on { (a) Appendicitis, (b) Hernia. }—W. F. Westmoreland, M. D., Atlanta.

22. Chronic Diarrhœa as an Entity, with Report of Cases.—T. M. Greenwood, M. D., Mineral Bluff.

23. A Few Remarks on the Treatment of Post Nasal Adenitis.—M. F. Carson, M. D., Griffin.

24. The Physician.—J. S. Wimberly, M. D., Sunlight.

25. The Endoscopic Treatment of Chronic Urethritis, with Report of Cases.—W. L. Champion, M. D., Atlanta.

26. Antitoxin in the Treatment of Diphtheria.—B. L. Bridges, M. D., Ellaville.

27. Adenoids in the Pharyngeal Vault, and Their Influence Upon the Ear.—A. W. Calhoun, M. D., Atlanta.

28. The Deadbeat vs. the Doctor.—W. J. Rowe, M. D., Buford.

29. Report of a Case of Poliomyelitis.—W. L. Patten, M. D., Milltown.

30. Some Pathological Investigations.—Chas. M. Blackford, M. D., Augusta.

31. (Title to be furnished.)—S. Latimer Phillips, M. D., Savannah.

32. Alcoholic Irrigation in Puerperal Sepsis.—George H. Noble, M. D., Atlanta.

33. The Importance of Careful Chemical Analysis in Gastric Disorders.—Wm. Clifton Lyle, M. D., Augusta.

A NOVEL OPERATION. REMOVAL OF BOTH SEMINAL VESICLES THROUGH THE BACK.

This operation was performed, so far as we know for the first time, on March 23, 1898, by Dr. Robert T. Morris, at the private Park Hospital, 132 East 16th Street, New York. The patient was 24 years of age. The vesicles were closed from gonorrhœal infection of long standing, and incapacitated the patient entirely from any active duty. The chief indication for operation was bowel obstruction due to a pelvic cellulitis, with pelvic peritonitis, very similar indeed to the symptoms of pyosalpinx in the female. Incision was made through the gluteus maximus exterior to the coccyx, above the anus, but avoiding the cutting of the fibres of the internal sphincter, and coccyx was removed with scissors: the dissection continued until the seminal vesicles were found firmly adherent to the surrounding structures. With great difficulty the adhesions were broken off, the vesicles freed and removed by enucleation. The specimens were about four times their normal size and much disorganized from inflammation. The operation is novel, was designed by Dr. Morris, and great skill was displayed in its execution. The patient is making a good recovery.

XUM

Editorial.

Dr. Hugh Hagan died of cerebral hemorrhage on Tuesday morning, March 22, at the age of 34 years. Dr. Hagan was a native of Richmond, Virginia. He was graduated from the College of Physicians and Surgeons, New York, with the class of 1889. Immediately after graduation, he removed to Atlanta. He subsequently spent some time in Europe, and on his return to Atlanta resumed his practice, confining it largely to diseases of the mind and nervous system.

Blessed with a cheerful disposition, united with great cordiality of manner, there were very few men in the city who could boast of a larger circle of friends and admirers than Dr. Hagan. As a physician he was clear, decisive, resolute and enthusiastic in his performance of duty. He gained and held the confidence of his patients, and enjoyed the respect and esteem of his professional confreres and the community at large. The recollection of his robust personality, his hearty friendliness, his helpfulness in counsel and his unfailing kindness to all in distress and sickness, will remain forever enshrined in the hearts of his friends. He leaves a wife and two sons to mourn his loss.

There are in the United States very few physicians, except the unmarried, the recent graduate, and the restless stick-at-nothing, who will be disposed to volunteer their services at the first outbreak of hostilities with Spain.

War to the doctor is something, to characterize it no stronger, extremely inconvenient. The majority of them, save the elect few who were born with the silver spoon, or of opulent heredity, or have shown great skill in the selection of a father-in-law, are dependent upon the work of their hands and brains for a livelihood and have but little stored away against the time when the evil day cometh.

War to them means desertion of a family poorly equipped to survive in the absence of the bread-winner, dispersion of practice, and after the wrench of parting is over, exposure to disease, hardship and hard work. The surgeons in the late

war who were shot down in the performance of duty or fell victims to the ravages of disease which projected its dark shadow over the armies, numbered among the hundreds and bear witness to the fact that instead of being non-combatants, they were confronted by a double menace. It is hardly reasonable to suppose that the sword of war with Spain could hew down to the heart of this great country and make it necessary for every able-bodied man in it to go forth and fight for its preservation. Long before this happened, every doctor in the land would have cheerfully given his services regardless of home ties, for the profession of medicine is not calculated to make poltroons of its devotees. The United States expects every man to do his duty.

COLLEGE COMMENCEMENTS.

The fortieth annual commencement of the Atlanta Medical College took place at the Grand Opera House, March 28, 1898. There were forty-six graduates. The honors were awarded to the following: First honor, Dr. Rios Zertuchi, of Mexico; second, Dr. J. Jones, of South Carolina; third, Dr. J. H. Johns, of South Carolina. The following graduates received honorable mention: Leroy Napier, Ga.; W. H. Johnson, Ga.; J. M. Smith, Ga.; A. J. Moony, Ga.

The Southern Medical College held its nineteeth annual commencement on March 30. There were twenty-seven graduates. The honors were awarded to the following gentlemen: First honor, Louis Sage Hardin, S. C.; second, W. A. Tillie; the third was awarded between Aubrey Harper and C. A. Smith, of Ga., Joseph Goodwin, Tenn., J. Weddington, Ga., V. Lagerson, Me., and George Turner, Ga., received honorable mention.

The Southern section of the American Laryngological, Rhinological and Otological Society convened in Atlanta, March 28. The list of papers presented was large and interesting. A reception was tendered the visiting members by the chairman, Dr. A. W. Calhoun.

The Association of Surgeons of the Central Railroad of Georgia, will meet at Cumberland Island, at the same time as the State Association.

XUM

Book Reviews.

A TEXT-BOOK ON SURGERY.—General, operative, and mechanical, by John A. Wyeth, Professor of Surgery in and President of the Faculty of the New York Polyclinic Medical School and Hospital; late Surgeon to Mount Sinai Hospital and Consulting Surgeon to St. Elizabeth's Hospital, etc., etc., etc. Third edition, revised and enlarged. New York: D. Appleton & Co., 1898.

This work is entitled to great respect, coming from one of the foremost surgeons and teachers in our country, and published by one of the best publishing houses in the United States. The place that "Wyeth's Surgery" already holds in the minds of the profession will be enhanced by the present enlarged edition. Some new illustrations decorate its pages.

As a plain guide in surgical technique, we can indorse it *in toto*, but as a historical or scientific work it lacks some essential points. As an example, we would refer to page 693, where the following statement is found:

"Within recent years the operation of opening into the common gall-duct for obstruction due to calculus, has been considered extra hazardous and difficult, and surgeons have suggested (Nussbaum, 1880) making a fistulous opening between the gall-bladder and the small intestine near the junction of the duodenum and the jejunum. The first operation was done by Monastyrski in 1887, but was unsuccessful. Dr. Jacob Michaux, of Richmond, Va., one of the first to perform this operation in the United States, suggested the operation of cholecysto-enterostomy."

It is difficult to know why the credit due to Drs. Von Winiwarter and J. McFadden Gaston should have been withheld. It is also surprising that the author should have supposed that the position of the operation he mentions should have determined all others near the duodenum and the junction with the jejunum.

The operation which we have been accustomed to regard as the very first ever performed for the junction of the gall-bladder with any portion of the intestinal canal was done by Winiwarter, and was done many years before that done by the author named, *i. e.*, Monastyrski.

The English books have been quite accurate in this respect. Mention has been given by Greig Smith and Mayo Robson of the operation of cholecysto enterostomy. The latter says: "In 1880 Nussbaum suggested the possibility of this operation in cases of obstructive jaundice. (Deutsche Chirurgie, Lieferung, 44, p. 94).

"On the 20th July, 1880, Winiwarter, of Liege, first performed the operation, establishing a communication between the gall bladder and the colon.

"Dr. Gaston, of Atlanta, apparently quite independently of any previous suggestions, in a series of experiments on dogs,

showed how a communication might be established between the duodenum and the gall-bladder, which operation he termed duodeno-cholecystotomy, and, as shown by the diagram (Figure 15) that accompanied his second paper (in *Brit. Med. Journal*), this method restores the bile to the intestinal canal, where its physiological functions are accustomed to be performed."

Greig Smith, in his work on Abdominal Surgery, page 627, says under the head of "Entero-Cholecystotomy": "The original operation of Winiwarter, already referred to, successfully established a communication between the gall-bladder and the colon. In this situation, the physiological effects of the biliary secretion were lost. Dr. Gaston, of Atlanta, Ga., in a series of instructive experiments on dogs, showed how a communication might be established between the duodenum and the gall-bladder, thus preserving to the system whatever value the bile may have."

In this country H. O. Marcy, J. B. Murphy, and W. E. B. Davis, have expressed their views of "Gaston's Operation," as called by the late Dr. E. S. Gaillard, in an editorial appearing in the same number of his journal in which appeared Dr. Gaston's first published suggestion of the operation, in October 1884. The *Atlanta Medical and Surgical Journal* for September and October, 1884, were the channels containing the publication of the "Experimental Cholecystotomy." The remark as to Nussbaum by Wyeth, is correct, but the operation of Michaux is not so well established in priority over other American surgeons.

Dr. Wyeth has very full accounts of aneurisms and amputations. His views on pyemia and septicemia are practical, while the remarks on localization of abscesses of the brain seem to us somewhat vague, and uncertain. The advice to operate in these cases of brain suppuration is good, but the method of diagnosis is not positive. We prefer Ashhurt's conservative position in this branch of surgery.

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	Cases	Deaths
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Laryngeal Diphtheria . . .	26	6
	141	7
Excluding 2 cases moribund on admission	2	2
	139	5

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